

VI. Transportation Element

Introduction

Purpose and Intent

The purpose of the transportation element is to establish goals and policies which will accommodate the anticipated levels of growth within Duvall and the designated Urban Growth Area (UGA). This element is an integral part of the overall Comprehensive Plan, with land use projections establishing transportation needs, which then identify the specific transportation projects for the Capital Facilities Element. The Transportation Element addresses street classifications, levels of service, travel forecasts, travel improvements, alternative modes, funding strategies and concurrency management.

During 2002-2003, with the assistance of a planning consulting firm, the City held visioning forums in which citizens clearly identified transportation as one of their highest priorities to address. Since transportation issues in Duvall are generated on a local and regional level, the intent of this element is to create strategies that will:

- Encourage mitigation of traffic congestion;
- Increase vehicular and pedestrian safety;
- Ensure adequate infrastructure is planned for future growth within the city and surrounding area;
- Encourage alternative cost-effective modes of transportation such as transit;
- Protect neighborhoods from the negative impacts of highway and arterial roads;
- Protect the human and natural environment from noise, air, and visual impacts, and;
- Improve traffic flow and efficiency

Regulatory Setting

Growth Management Act

Under the Growth Management Act (RCW 36.70A.070), the Transportation Element is required to assess the needs of a community and determine how to provide appropriate transportation facilities for current and future residents. The element must contain:

- Inventory of existing facilities;
- Assessment of future facility needs to meet current and future demands;
- Multi-year plan for financing proposed transportation improvements;
- Forecasts of traffic for at least 10 years based on adopted land use plan;
- Level of service (LOS) standards for arterials and public transportation, including actions to bring deficient facilities into compliance;
- Demand management strategies, and;
- Identification of intergovernmental coordination efforts.

Additionally, under the City's concurrency management policy, development may not occur if the development causes the transportation facility to decline below the City's level of service standard unless existing infrastructure exists or strategies to accommodate the impacts of the development are made within six years of the development. Finally, the Element must include a reassessment strategy to address how the plan will respond to potential funding shortfalls.

Puget Sound Regional Council- VISION 2020 & Destination 2030

VISION 2020 serves as the guide for regional growth for the central Puget Sound Region of Washington State, which is comprised of King, Pierce, Snohomish, and Kitsap counties. The multi-county planning policies in *VISION 2020*, as required by the Growth Management Act (GMA), provide strategies for regional growth management and transportation decision-making. *VISION 2020* calls for containing the majority of the region's future growth within designated urban growth areas and focusing the growth in compact communities. The multi-county planning policies adopted by *VISION 2020* are used to certify local transportation elements for conformity with the requirements of the GMA.

Destination 2030 is the 30-year transportation plan for the central Puget Sound Region, which meets federal and state planning requirements regarding regional transportation. The plan was developed to expand upon *VISION 2020* with additional multi-county framework policies. *Destination 2030* focuses on preserving and managing the existing transportation system and ensures the development of a multi-modal transportation system (including autos, public transit, ride-sharing, walking, bicycling, etc).

Countywide Planning Policies

The King County Countywide Planning Policies (CWPPs) require that local jurisdictions develop a balanced transportation plan that is consistent with *VISION 2020* and proposed regional mobility (i.e. autos, transit, bicycle, pedestrian, air, etc). The CWPPs promote high capacity transit, non-motorized transportation, high-occupancy vehicle travel, mode-split goals, preservation and maintenance of existing transportation facilities, and development of financing strategies to meet future needs. Level of service (LOS) calculations should be consistent to aid in determining accountability and impacts of projects. Each comprehensive plan should include timelines for improvements, focusing on preservation and maintenance of existing infrastructure with additions as necessary to accommodate future growth. When funding falls short of projected needs, alternative funding sources should be sought. These sources may include developer contributions, impact fees, local improvements districts (LIDs), etc.

Clean Air Conformity Act

The Transportation Element is also subject to the Washington State Clean Air Conformity Act that implements the directives of the Federal Clean Air Act. Because air quality is a region wide issue, the city of Duvall's Comprehensive Plan must support the efforts of state, regional, and local agencies as guided by WAC 173-420-080.

Organization

The Transportation Element is organized into seven parts:

- Identification of community transportation issues;
- Assessment of existing transportation facilities that identify existing transportation needs;
- Travel forecasts and analysis of future conditions that identifies where changes to the transportation system are needed;
- Recommended transportation plan;
- Transportation finance plan;
- Development review and concurrency program, and;
- Goals and policies.

Community Transportation Issues

As part of the 2003 City-Wide Visioning Plan, Duvall residents identified the conditions and issues that face the city of Duvall's transportation system. A primary concern of community residents is how future growth will affect the city and how to preserve the small town feeling as traffic growth continues and needs for transportation improvements increase. A focus of the community's concern surrounds the future of the SR-203/Main Street corridor. While the existing configuration of 2-lanes with on-street parking is adequate for existing volumes, future traffic projections indicate that some type of transportation improvements will be necessary to accommodate future traffic growth. Although traffic capacity is an

issue of concern, traffic calming measures rather than high-speed capacity improvements were considered the top priority by planning participants to mitigate traffic along Main Street. Some of the issues identified by the participants in the visioning process include:

- Community Character – retaining the look and feel and pedestrian scale of “Old Town”;
- Truck Traffic – reducing the number of trucks and impact of truck traffic in Old Town pedestrian areas, either by creating mechanisms to slow traffic or considering alternate routes;
- Economic Preservation – ensuring that future economic viability is maintained for businesses, including the retention of parking on Main Street;
- Safety – providing safe crossings for pedestrians and vehicles;
- Operations – allowing for the efficient movement of local and through traffic, including facilities for non-motorized vehicles and pedestrians;
- Connectivity – providing strong access to parks, the Snoqualmie River and old and new parts of town. Ensuring connected bicycle and pedestrian facilities throughout the city, and;
- Environmental – preserving air and water quality.

Existing Transportation Services and Facilities

The assessment of existing transportation services and facilities allows the identification of transportation issues and needs. An inventory of these facilities provides a reference point of the operation of transportation facilities and services and allows identification of where needs exist. This inventory updates the 2000 Transportation Element Update of the 1994 Comprehensive Plan and includes the following areas:

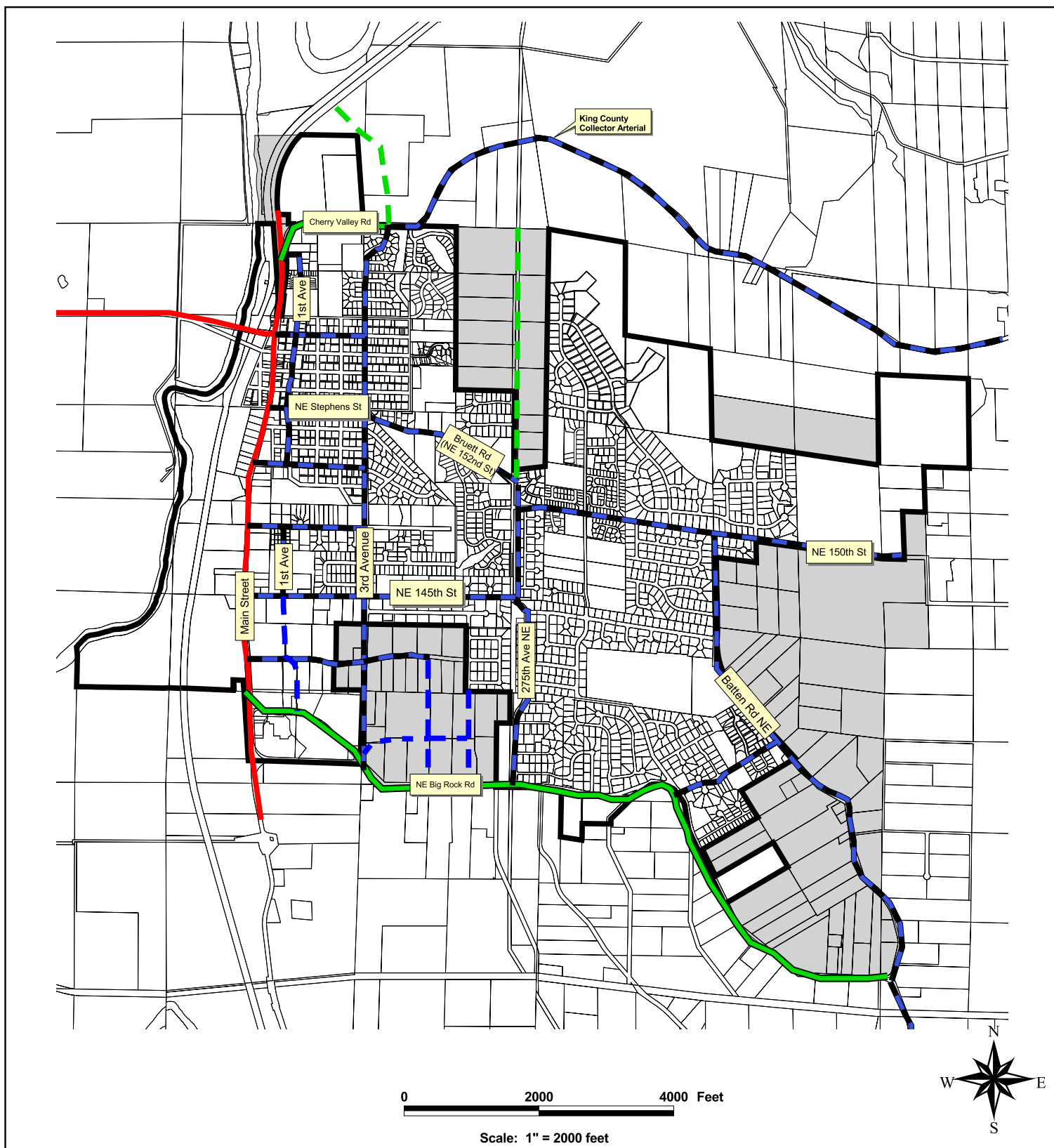
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| - Roadway system | - Transit |
| - Transportation Demand Management | - Parking |
| - Pedestrian facilities | - Bicycle facilities |
| - Air services | - Freight movement |

Roadway System & Traffic Controls

Roadway Classifications

The city of Duvall’s functional classification system is set forth in the *City of Duvall Development Design Standards* (1994). These standards provide detailed specifications for the use and construction of roadways. There are three classes of arterials: principal, minor, and collector arterials, as well as residential and commercial access streets. Both existing and future arterials, as well as existing and future signalized intersections, are shown on Figure T-1: Roadway Classifications.

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Legend

Roadway Classifications

- Principal Arterial
- Minor Arterial
- Collector Arterial
- - - Proposed Minor
- - - Proposed Collector
- Parcels
- City Boundary Line
- Urban Growth Area

Figure T - 1 Roadway Classifications



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Principal Arterial

Principal arterials are highways connecting major community centers and outlying areas, or roads that have relatively high traffic volumes within the city, often constructed with partial limitations on access through intersections and common driveways. Principal arterials can have between two and five lanes, typically with a minimum paved width of 24 feet and 100 feet of right-of-way. These roads are generally intended to serve “through” traffic. Principal arterials in the Duvall area include Main Street (SR-203) and Woodinville-Duvall Road.

Minor Arterial

Minor arterials are roads and highways that connect centers and facilities within the community, provide connections to outlying areas of the community, and distribute traffic to/from principal arterials. Minor arterials can vary from two to five travel lanes, typically require 84 feet of right-of-way and have a minimum paved width of 24 feet. Cherry Valley Road and Big Rock Road are classified as minor arterials within the city. East of the city, these two roads are classified as collector arterials by King County.

Collector Arterial

Collector arterials connect two or more neighborhoods, carry traffic within neighborhoods and provide connections to principal and minor arterials. Collector arterials are limited to a maximum of three lanes with typical rights-of-way of 60 feet. Stephens Street, Bruett Road / NE 152nd Street, NE 150th Street, 275th Avenue NE, Batten Road / 284th Avenue NE and 3rd Avenue / 268th Avenue NE are classified as collector arterials.

Roadway Descriptions

The following section describes the use and function of the principal, minor and collector arterials around and within the city of Duvall. For each, specific information is given about the current features of the facilities within the roadway right-of-way.

Principal Arterials**Main Street / SR – 203**

Main Street / SR – 203 is a 2-lane principal arterial highway that connects the city of Monroe and US-2 in Snohomish County, through the city of Duvall, to its terminus at the junction with SR-202 at Fall City. Because its route roughly parallels I-405 and the nearby gravel pits, SR-203 attracts a high volume of truck traffic connecting to SR- 522 or I-90. Within the city limits, Main Street functions as the primary north-south corridor for both local and through traffic.

Between Stephens Street and Virginia Street, Main Street has a 56-foot paved width consisting of two 14-foot travel lanes and parallel parking. The parking lanes are generally 14 feet wide, allowing vehicle parking and room for persons to enter and exit vehicles without waiting for breaks in oncoming traffic. The lanes also act as bicycle lanes. Twelve-foot sidewalks as well as curb and gutter are provided on both sides within the 80-foot right-of-way. Left turn lanes are provided at Stephens Street and onto westbound Woodinville-Duvall Road. There are traffic signals at the intersections of Main Street and Woodinville-Duvall Road/Virginia Street, Main Street and Stephens Street and at Main Street and Big Rock Road. South of Stephens Street, Main Street is a 2-lane facility with a right-of-way varying between 60 and 80 feet. Appendix D includes the WSDOT-required State facility inventory.

Woodinville-Duvall Road

Woodinville-Duvall Road is a 2-lane, 24-foot wide principal arterial under King County jurisdiction which connects the cities of Woodinville and Duvall. At the Woodinville-Duvall Bridge, the roadway consists of 2-lanes with curb and railing on both sides on the bridge section. This road carries high traffic volumes from Main Street westbound through King County to the Woodinville area. Virginia Street connects to Main Street at the intersection of Woodinville-Duvall Road and Main Street and is slightly offset from Woodinville-Duvall Road. The signalized intersection at Main Street has poor turning characteristics, particularly for trucks turning west from the southbound direction. The City will support the County and the State when those agencies secure funding for improvements to the Woodinville-Duvall Bridge and the bridge access to Main Street.

Minor Arterials

Cherry Valley Road

Cherry Valley Road is a 2-lane collector arterial primarily under King County jurisdiction. Within Duvall, the City classifies it as a minor arterial. The roadway is 21 feet wide with narrow shoulders and no sidewalks. Cherry Valley Road terminates at Main Street at a skewed, stop-controlled intersection. Past studies by WSDOT explored various options for correcting this intersection, which has poor turning characteristics, particularly for vehicles turning left from southbound Main Street and right from westbound Cherry Valley Road. A possible new alignment by extending 3rd Avenue north to SR-203 is shown on Figure T-1.

Big Rock Road

Big Rock Road for most of its length is a 2-lane, 22-foot wide collector arterial with narrow shoulders and limited sidewalks. Big Rock Road has experienced increased volumes as more residential development is built in the eastern portions of Duvall and unincorporated King County. In addition, commercial development at the intersection of Big Rock Road and Main Street has generated the need for a traffic signal, turn lanes and the relocation of the intersection. A new intersection was built in 2000 with a signal and turn lanes. Also, an 1,800-foot stretch of Big Rock Road was relocated and built just north of the Safeway shopping center. This new stretch consists of three lanes with 5 foot bike lanes on both sides and approximately 400-feet of sidewalk on the south side. The old intersection of Main Street and Big Rock Road has been closed.

Collector Arterials

Stephens Street

Stephens Street between Main Street and 3rd Avenue is a 2-lane, 26-foot wide collector arterial with a 6-foot bike lane on the south side and sidewalks on both sides. Stephens Street angles and intersects with Bruett Road at 3rd Avenue, providing the primary east-west connection between the east side and west side of Duvall. There are stop signs for side street intersections with all-way stops at 2nd and 3rd Avenues. There is also a signalized intersection at Stephens Street and Main Street.

Bruett Road / NE 152nd Street

Bruett Road / NE 152nd Street is the primary east-west connection between Old Town and the eastern side of the city. Between 3rd Avenue and 275th Avenue, Bruett Road was recently improved with State and City funding as a 2-lane, 24-foot wide collector arterial with a 6-foot bike lane on the south side and curb, gutter and sidewalks on both sides.

NE 150th Street

NE 150th Street is part of the Stephens Street/Bruett Road corridor that connects Main Street to residential development on the east side of the city and to Cedarcrest High School. NE 150th Street has 2-lanes within a 60-foot right-of-way. Sidewalks are on both sides of the street for almost the entire length.

3rd Avenue / 268th Ave NE

3rd Avenue is considered as an important north-south connection between Cherry Valley Road and NE 143rd Place. From Virginia Street to Stephens Street, 3rd Avenue is classified as a collector arterial. The road is 25 feet wide with 2-lanes with curb, gutter, and sidewalk on both sides between Virginia and Stephens streets. In this section, the traffic control includes two-way stops at both Virginia and Stephens streets for north-south traffic. There is a sidewalk on the west side of 3rd Avenue just south of Stephens Street. The remaining right-of-way has either an informal paved or dirt path or no sidewalks.

275th Avenue NE

275th Avenue is classified as a collector arterial that has developed as the central north-south arterial spine in Duvall, serving many of the new housing developments in the city. The roadway varies in width and features a curvilinear alignment that provides vehicle traffic calming. Sidewalks are located along 275th approximately between NE 148th Lane and just north of NE 155th Place to the north city limit. The remaining right-of way has intermittent sidewalks, depending on improvements from new development. 275th north of NE 150th Street would be classified as a minor arterial upon annexation of the North UGA.

Batten Road / 284th Ave NE

Batten Road / 284th Ave NE is a 2-lane, 22-foot wide collector arterial with no sidewalks or curbs, except intermittently where development has occurred. The road is the primary eastern connection between NE 150th Street and Big Rock Road. It runs along the eastern edge of the city limit and is within the UGA and primarily under King County jurisdiction.

NE Virginia Street

NE Virginia Street between Main Street and 3rd Avenue is a 2-lane, 43-foot wide collector arterial with no sidewalks or curbs, except at the Main Street intersection. Beyond 1st Avenue, the road narrows to 22-feet with no curb or sidewalks. Between Main Street and 2nd Avenue, the road grade is about 15%.

Valley Street

NE Valley Street is a 2-lane, 22-foot wide residential access street with sidewalks, curbs and gutters up to approximately 2nd Avenue, where the road narrows to 18-feet. This road serves the southern business district and residential areas of Old Town.

NE Kennedy Drive

NE Kennedy Drive is a 2-lane, 18-foot wide residential access street with no sidewalks or curbs located between Main Street and approximately 4th Ave NE. Between Main Street and 1st Avenue, the road grade is about 20%.

Roney Road

Roney Road is a 2-lane, 30-foot wide residential access street with sidewalks, curbs and gutters on both sides, including a 5-foot wide bike lane on both sides. This road connects Big Rock Road and Batten Road in the far southeast corner of the city.

NE 143rd Place

NE 143rd Place is a 2-lane, 22-foot wide residential access street with no sidewalks or curbs located between Main Street and 274th Place NE. The road passes through the southwest section of the city and the southern UGA, which is currently under King County jurisdiction.

NE 145th Street

NE 145th Street is a 2-lane, 18-foot wide residential access street with no sidewalks or curbs located between Main Street and 3rd Avenue and again between approximately 272nd Place NE and 275th Place NE. There is an unimproved section of the roadway between 3rd Avenue and 272nd Place that is still owned by private homeowners.

Traffic Volumes**Daily**

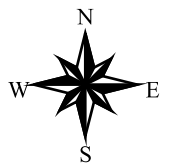
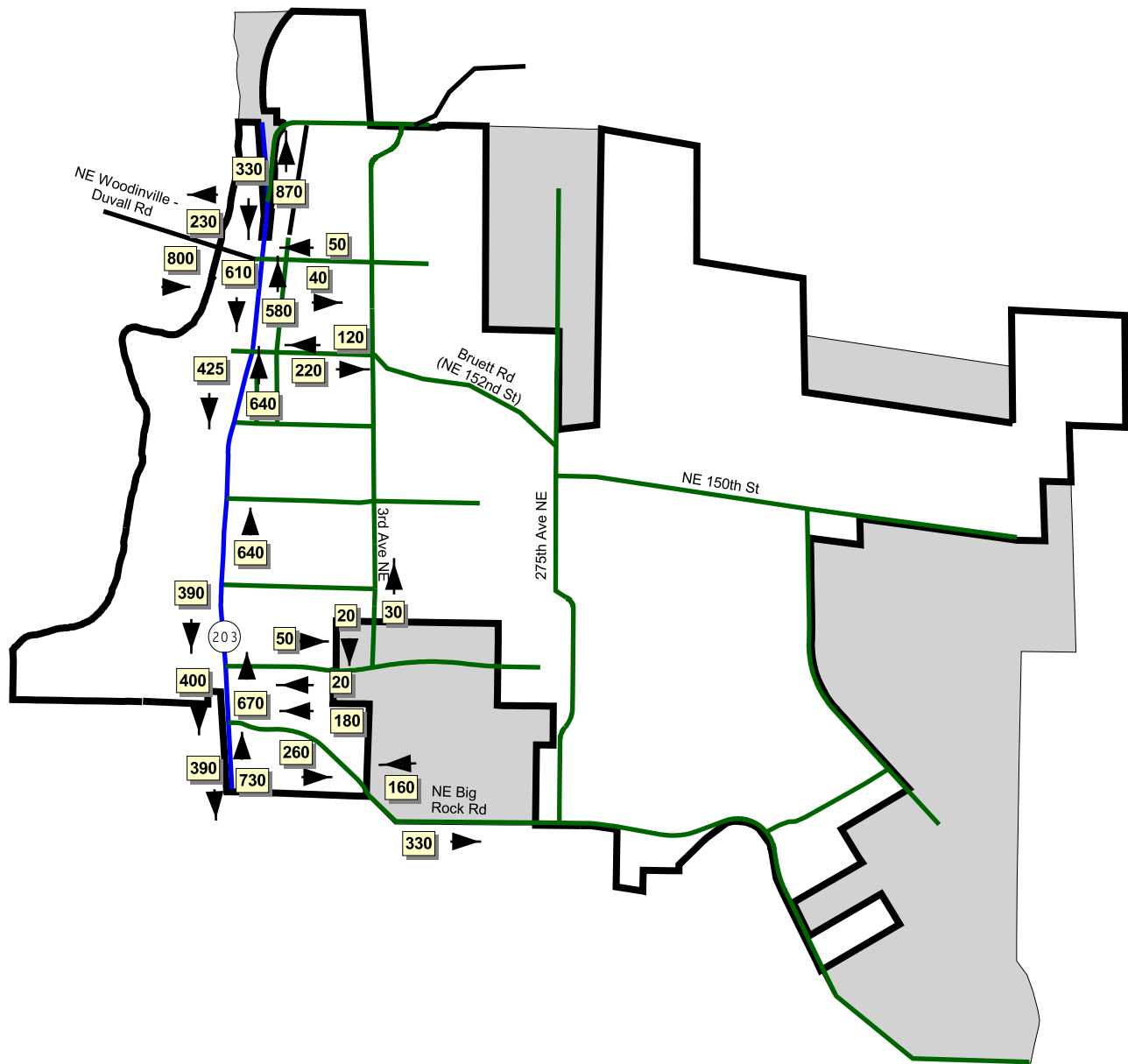
Daily traffic volumes along SR-203 were obtained from WSDOT for 2002. Approximately 11,000 vehicles per day (vpd) travel on SR-203 south of the city. Between Big Rock Road and Cherry Valley Road, SR-203 carried approximately 9,200 vpd in 2002. Since 1998, WSDOT data show an increase of approximately 1,000 vpd, a 10 percent increase over a five-year period. Daily truck classification counts were not available from WSDOT for locations within the vicinity of Duvall. WSDOT data for a location in Carnation show 13 percent of the daily traffic on SR-203 is trucks. Four percent of the total traffic along SR-203 in Carnation is double or triple unit trucks, and nine percent is single unit trucks.

King County traffic data shows 9,700 vpd on Woodinville-Duvall Road west of Main Street. This compares to 8,000 vpd in 1994. Cherry Valley Road just east of SR-203 had a count of approximately 4,100 vpd in 2003. East of the city, 2003 traffic volumes on Cherry Valley Road decrease to 2,600 vpd. In 2003, Big Rock Road carried 6,400 vpd just east of Main Street (SR-203). The 2003 volume on Big Rock Road declined to 2,500 vpd just west of Kelly Road, several miles east of the city.

PM Peak Hour

Recent PM peak hour traffic volumes were assembled from traffic impact studies for planned developments in the city. In addition, PM peak hour traffic volumes were obtained from King County and WSDOT. The traffic counts are from 2001 and 2002. Figure T-2 shows the 2001-2002 PM peak hour traffic volumes at several locations throughout the city. The PM peak hour volumes account for 8.5 to 10 percent of the total daily traffic, which is typical in the outlying areas of an urbanized area.

Approximately two-thirds of the PM peak hour traffic on Main Street is in the northbound direction. Eastbound traffic on Woodinville-Duvall Road comprises 75 percent of the total PM peak hour traffic on the bridge entering Duvall. These values are indicative of the travel patterns due to regional jobs and other activities being located west or southwest of the city.



Legend

- 950 PM Peak Hour Link Traffic Volumes
- Roads
- Collector Arterial
- Principal Arterial
- City Boundary Line
- Urban Growth Boundary

Figure T - 2 2001/2002 PM Peak Hour Traffic Forecasts



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Level of Service

Level of service (LOS) is a qualitative and quantitative measure of roadway operations that is determined by analyzing how well a transportation system performs. LOS is based on comparing the actual number of vehicles using a roadway (volume of traffic) to its carrying capacity (which is dependent on the number of lanes, the width of lanes, etc.). Level of service, as established by the *Highway Capacity Manual* (HCM) (Transportation Research Board, 2000), provides a range from LOS A (free flowing, minimal delay) to LOS F (extreme congestion, long delays). The operation of roadways, signalized intersections and unsignalized intersections are each based on a specific LOS definition.

For urban streets and highways within rural town centers, the level of service is based on the average travel speed of through vehicles along the corridor, such as Main Street. The average travel speed takes into account the speed between signalized intersections and the amount of delay incurred at the signalized intersections. For Main Street in Duvall, LOS A would have an average travel speed of greater than or equal to 25 mph. Average travel speeds of less than 7 mph through the corridor would represent LOS F conditions.

Signalized Intersections

Levels of service (LOS) at signalized intersections are defined in terms of average vehicle control delay of all movements through an intersection. Vehicle delay is a method of quantifying several intangible factors, including driver discomfort, frustration, and lost travel time. Specifically, LOS criteria are stated in terms of average delay per vehicle during a specified time period (for example, the PM peak hour). Vehicle delay is a complex measure based on many variables, including signal phasing (i.e., progression of movements through the intersection), signal cycle length, and traffic volumes with respect to intersection capacity. Table T-1 below shows LOS criteria for signalized intersections, as described in the *Highway Capacity Manual*.

**Table T-1
Level of Service Criteria For Signalized Intersections**

Level of Service	Control Delay Per Vehicle (Seconds)	General Description (Signalized Intersection)
A	≤10	Free Flow
B	>10-20	Stable Flow (slight delays)
C	>20-35	Stable Flow (acceptable delays)
D	>35-55	Approaching unstable flow (tolerable delay, occasionally wait through more than one signal cycle before proceeding)
E	>55-80	Unstable flow (intolerable delay)
F	>80	Forced flow (jammed)

Source: 2000 Highway Capacity Manual

Unsignalized Intersections

Level of Service (LOS) criteria can be further reduced into two intersection types: all-way stop-controlled and two-way stop-controlled. All-way, stop-controlled intersection LOS is expressed in terms of the average vehicle delay of all the movements, much like that of a signalized LOS is defined in terms of the average vehicle delay of an individual movement(s). This is because the performance of a two-way, stop-controlled intersection is more closely reflected in terms of its individual movements, rather than its performance overall. For this reason, LOS for a two-way, stop-controlled intersection is defined in terms of its individual movements. With this in mind, total average delay (i.e., average delay of all movements) for a two-way, stop-controlled intersection should be viewed with discretion. Table T-2 shows LOS criteria for unsignalized intersections (both all-way and two-way, stop-controlled).

Table T-2
Level of Service Criteria For Unsignalized Intersections

Level of Service	Average Total Delay (seconds)
A	0-10
B	>10-15
C	>15-25
D	>25-35
E	>35-50
F	>50

Source: 2000 Highway Capacity Manual

In addition to LOS analysis based on the 2000 HCM, the City requires the implementation of street standards for urban developments. These include sidewalks and other standards to support pedestrians and bicycles. The adequacy of roads in the city based on the street standards was considered in the identification of transportation improvement projects.

Roadway LOS Standards

In the 1994 Comprehensive Plan, the city of Duvall adopted LOS C for all arterials, except Main Street. A standard of LOS D was established for Main Street. The level of service standard was applied to roadway segments based on volume-to-capacity ratios.

The Washington State Highway System Plan, 2003-2022, identifies that for regionally significant state highways, the level of service standards adopted by the Metropolitan Planning Organization (MPO) shall apply. In King County, the MPO is the Puget Sound Regional Council (PSRC). In October 2003, PSRC adopted level of service standards for regionally significant State highways, including SR-203. The PSRC action was taken to comply with House Bill 1487, which amended the Growth Management Act (GMA). The full length of SR-203 between Fall City and Monroe is classified by PSRC as a Tier 2 state highway. Tier 2 highways serve the “outer” urban area, which are beyond a three-mile buffer of major regional highways, such as I-405 or designated urban centers. The PSRC adopted standard for SR-203 is LOS D or better. The PSRC has identified that the standard shall apply to the PM peak hour. WSDOT will use the LOS D standard for SR-203 to evaluate capacity deficiencies. This analysis will be used to identify improvement strategies for the highway including capacity enhancements, access management, or operations/safety improvements.

The city of Duvall is required to include the LOS D standard for SR-203 in its Comprehensive Plan. The City can use it's own method for assessing the LOS of the state highway, but the method must be consistent with the HCM criteria. PSRC indicates that GMA is not clear whether concurrency requirements apply to these regional highways of significance. As noted in the transportation policy section, the city of Duvall has decided not to apply concurrency to SR-203 in the city. This decision reflects the City's desire to:

- Retain the look and feel of “Old Town”
- Reduce the volume and impacts of trucks through town,
- Retain parking on Main Street to support economic growth, and
- Recognize that regional traffic increases will adversely affect levels of service at intersections along Main Street, even with no development in Duvall.

As part of the City's 2004 Comprehensive Plan, the City has maintained a standard of LOS D or better for Main Street consistent with the PSRC and state requirements. LOS C or better is established for all other

roadways in the city. The City will apply the LOS standard using the HCM methods for signalized and unsignalized intersections. The City will not apply the LOS standard based on roadway V/C presented in the 1994 Comprehensive Plan, since that method is not consistent with the HCM 2000 for urban streets or 2-lane highways.

Existing Traffic Operations

Based on analyses presented in recent traffic studies, intersections in the city operate at LOS C or better during the PM peak hour. The primary exception is Main Street (SR-203)/Woodinville-Duvall Road/Virginia Street which was calculated by King County to operate at LOS E during the PM peak hour based on 2001 traffic counts. (Woodinville-Duvall Road Bridge Closure Detour Traffic Impact Analysis, King County Department of Transportation, Draft October 2001.) The signalized intersections of Main Street (SR-203) with Stephens Street and with Big Rock Road operated at LOS B or better based on King County's 2001 analyses. The unsignalized intersection of 143rd Street at Main Street (SR-203) operated at LOS C for the minor volume westbound approach based on the 2001 traffic study for the City's Police Station (Transportation Planning & Engineering, Inc., May 2001). LOS B also was reported in the Police Station traffic study for the unsignalized intersection of Big Rock Road at 268th Avenue NE.

As presented above, the highest traffic volumes are found on Main Street (SR-203) and Big Rock Road. Since other streets in the city have lower traffic volumes, it is estimated that they also operate at LOS C or better.

Accident Data

Accident rates are another means of measuring the adequacy of roadways in the city. Accidents are an indication of where safety issues may exist within a transportation system. For this analysis, high accident locations are defined as follows:

- Unsignalized Intersections: an average of 5 or more accidents per year over a three-year period.
- Signalized Intersections: an average of 7 or more accidents per year over a three-year period.

The accident data, shown in Table T-3: Accident Data Between 2001-2003 indicates the number of reported accidents by the Police Department over a three-year period. As indicated in the table, the unsignalized intersections of Main Street/Cherry Street and the Cedarcrest High School entrance are high accident locations. Also, the signalized intersection of Main Street/Big Rock Road was a high accident location in 2002.

Table T-3
Accident Data Between 2001 - 2003

Intersection	2001	2002	2003	Annual Average
Main St/Woodinville-Duvall Rd	6	5	2	4.3
Main St/Cherry Valley Rd	-	-	3	1
Main St/NE Stewart St	-	2	2	1.3
Main St/NE Cherry St	3	10	3	5.3
Main St/NE Stella St	1	-	4	1.7
Main St/NE Stephens St	1	-	3	1.3
Main St/NE Ring St	1	1	-	.7
Main St/NE Valley St	2	-	4	2
Main St/NE 145 th St	1	-	-	.33
Main St/NE 143 rd Pl	-	2	-	.7
Carnation-Duvall Rd (SR-203)/ NE Big Rock Rd	1	7	3	3.7
Main St/Kennedy Dr	2	-	4	2
275 th Ave/Big Rock Rd	1	-	-	.33
275 th Ave/143 rd Pl	1	-	1	.7
275 th Ave/145 th Ln	1	-	-	.33
275 th Ave/NE 150 th St	2	1		1
NE 150 th /Cedarcrest High School	4	5	5	4.7
NE Stevens St/2 nd Ave	1	-	-	.33
NE Stevens St/Broadway Ave	1	-	-	.33
NE Stevens St/3 rd Ave	-	-	1	.33
3 rd Ave/Cherry Valley Rd	1	-	-	.33
Bruett Rd/275 th Ave NE	-	1	-	.33
NE Stella St/3 rd Ave	-	-	2	.7
Kennedy Dr/3 rd Ave	-	-	1	.33
NE Miller St/3 rd Ave	-	-	1	.33
Big Rock Rd/3 rd Ave	-	-	1	.33
279 th Ave/Big Rock Rd	-	-	2	.7
282 nd Ave/Big Rock Rd	-	-	2	.7
278 th /NE 148 th St	-	-	2	.7
278 th /NE 150 th St	-	-	1	.33

Source: City of Duvall Police Department

Pedestrian Facilities

Figure T-3: Pedestrian Facilities, indicates the location of existing and future pedestrian facilities and links within the city of Duvall. Sidewalks are primarily found along Main Street between Ring Street and Virginia Street, along Stephens Street and Bruett Road, 3rd Avenue north of Stephens and along portions of NE 150th. There are pedestrian crosswalks along Main Street at Stephens Street, Cherry Street, and Woodinville-Duvall Road.

The city of Duvall has worked to enhance pedestrian corridors, including sidewalk improvements as part of roadway projects. Newer developments have been built with sidewalks, providing mobility within developments and pedestrian facilities; however, there is currently little connectivity to areas outside of developments and to primary destinations such as schools, retail areas and other public facilities. Where sidewalks are not available, pedestrians must use roadway shoulders, if available.

The existing *City of Duvall Development Design Standards* require that concrete sidewalks be constructed on both sides of all arterials, neighborhood collectors, subcollectors, multiple-dwelling and business access streets. Single-side sidewalks are allowed on subaccess streets and industrial access streets. Sidewalks are required to be a minimum of 5 feet wide in residential and commercial areas, and at least 8 feet wide in commercial areas where store frontages are within 80 feet of the street right-of-way and in areas served by public transit. The Duvall Unified Development Regulations require sidewalks in commercial areas to be 12 feet wide. The discrepancy between the Development Design Standards and the Unified Development Regulations will be addressed in 2005.

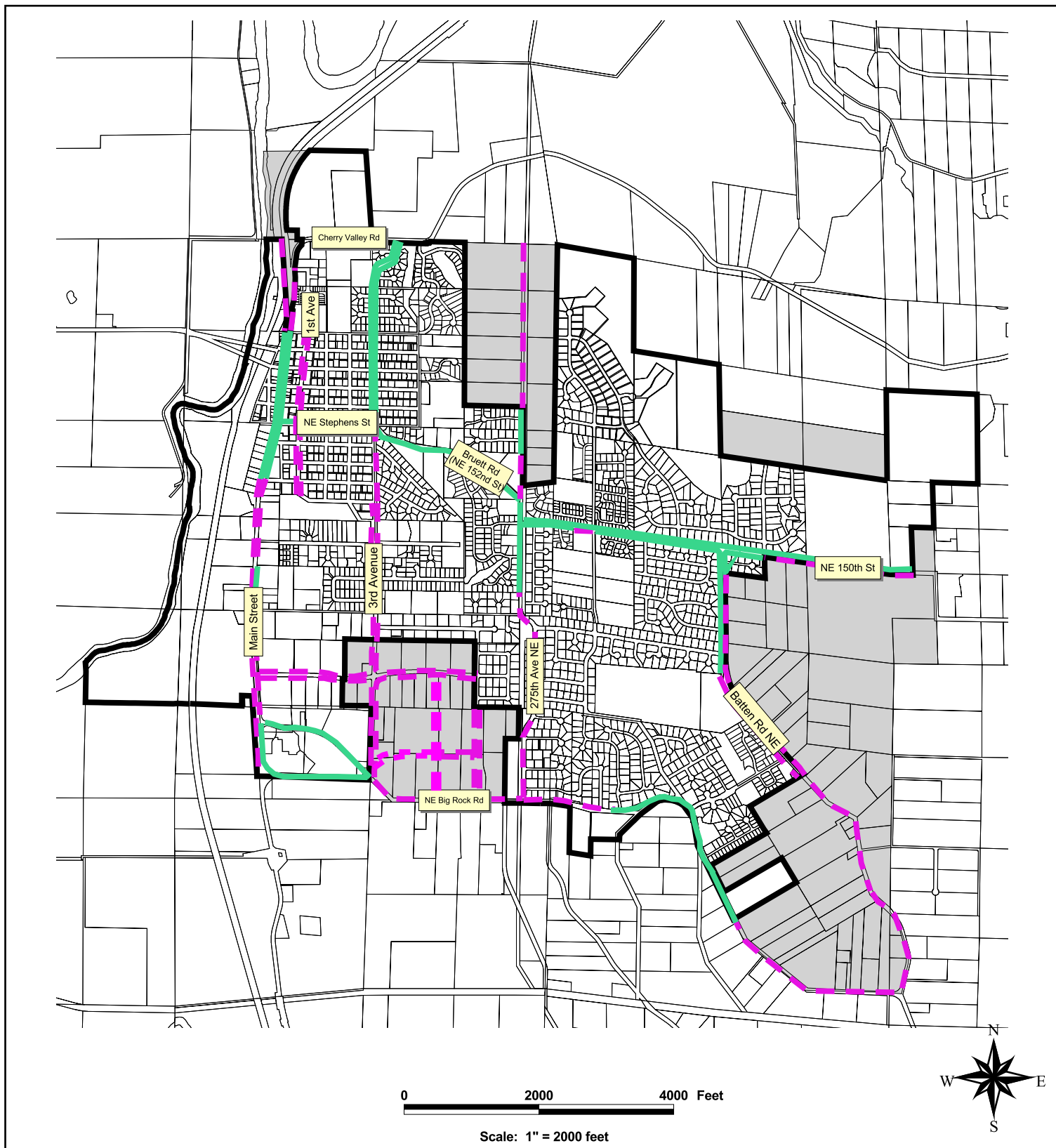
Missing sidewalk links include, but are not limited to:

- NE 150th Street east of 275th Street
- Big Rock Road east of Safeway
- Majority of 1st Avenue NE – city limit to city limit
- Majority of 3rd Avenue NE – city limit to city limit
- Main Street south of Valley Street
- Majority of 275th Avenue – city limit to city limit
- Majority of NE 143rd Place – city limit to city limit
- Batten Road
- Cherry Valley Road
- Connections from neighborhoods to Snoqualmie Valley Trail.

The only maintained trail within the city is the Snoqualmie Valley Trail, which is maintained by King County Parks. This gravel trail provides excellent non-motorized recreational opportunities for both city of Duvall residents and visitors to the trail. Future connections to the Snoqualmie Valley Trail from other parts of the city are addressed in the Parks & Recreation Element of the Plan. There are several informal paths and trails along city roadways that will be improved to sidewalk standards once redevelopment occurs.

The Public Health Department, Seattle & King County recently published the *Duvall Walking Map* (December 2003). The map identifies numerous walking routes within the city as a way to improve community connections and promote health for Duvall residents. Those walking routes are identified on Figure P-2, Trails and Walking Routes, of the Parks and Recreation Element.

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Legend

Sidewalks

- Existing
- Proposed

Parcels

- City Boundary Line
- Urban Growth Area

Figure T - 3 Pedestrian Facilities



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Bicycle Facilities

Bicyclists generally share the roadway with automobiles in the city of Duvall, although King County has identified SR-203, Big Rock Road, Cherry Valley Road and Woodinville-Duvall Road as preferred routes in its *Bicycling Guidemap*. These facilities are identified by King County as low to moderate traffic roadways without a curb lane or shoulder. As discussed above, these roads have the highest volumes of traffic in the city. In addition to the routes identified above, the King County Snoqualmie Valley Trail provides an excellent opportunity for non-motorized recreation, including off-road bicycling. This trail passes through the city of Duvall and traverses south through the cities of Carnation, Fall City, and North Bend, and will eventually connect to the Mountains to Sound Greenway located along Interstate 90.

The *City of Duvall Development Design Standards* sets specific standards for the development of bicycle facilities, varying from bicycle lanes to shared roadway bicycle ways. Figure T-4: Bicycle Routes, indicates the existing bicycle facilities within Duvall, which include paved and striped shoulder areas along Main Street, Stephens Street and Bruett Road. Most of the existing facilities are not marked and are sometimes provided on only one side of the roadway. As commercial, industrial and residential development occurs, the need for walking, biking and jogging paths must be monitored and the smaller systems should be incorporated into a city and regional trail facilities system.

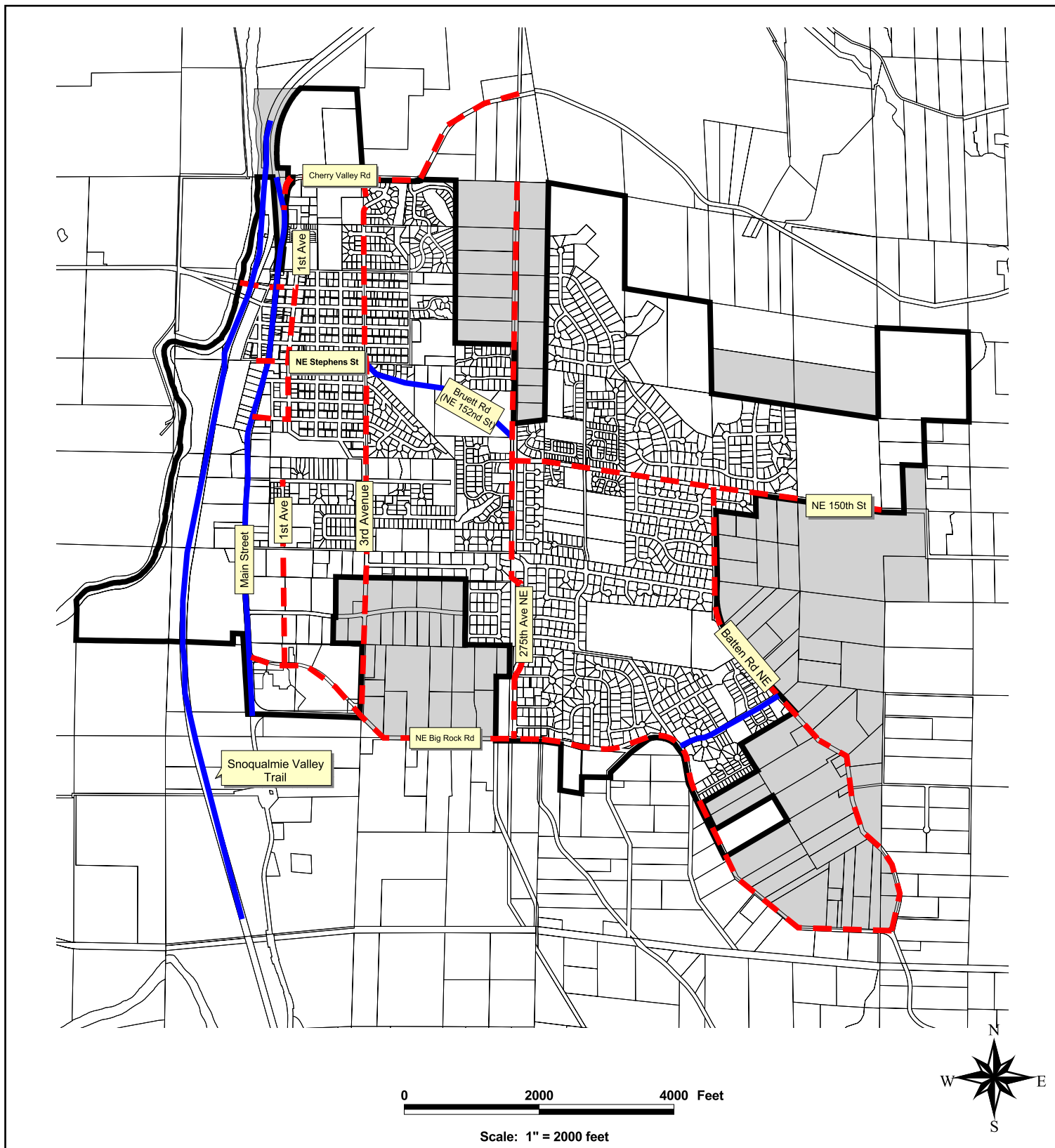
Bicycle routes are missing or deficient on the following roadways/areas:

- Main Street - Stephens to NE Big Rock Road
- NE Big Rock Road east of Safeway
- Cherry Valley Road
- Stephens Street
- 150th Street
- 3rd Avenue
- 1st Avenue
- 275th Avenue NE
- Connections to the Snoqualmie Valley Trail

Equestrian Facilities

The King County Snoqualmie Valley Trail serves local and regional equestrian needs within the city and surrounding area.

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Legend

- Bicycle Routes
 - Existing
 - Proposed
- Parcels
- City Boundary Line
- Urban Growth Area

Figure T - 4 Bicycle Routes



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Transit Service

King County Metro provides transit service to the city of Duvall. Transit is currently limited to weekday service and primarily focused on commuter services based on the Fall 2003 service program.

Route 232 provides peak period commute service from Duvall to Bellevue. In addition to Duvall and Bellevue, other points served by this route include the King County communities of Cottage Lake, the Bear Creek Area, English Hill and Redmond.

Route 311 provides peak period commute service from Duvall to downtown Seattle. From Duvall, the 311 travels west through Woodinville, becoming an express bus traveling along SR-522, I-405 and SR-520, with limited stops from Woodinville to downtown Seattle. Other points served include the city of Kirkland, the city of Bellevue, and the Montlake Station (University of Washington).

Route 929 provides weekday daytime service between Redmond and North Bend. In addition to Duvall, Redmond and North Bend, other areas served by this route include the Bear Creek Area, Cottage Lake, Stillwater, Fall City, and Snoqualmie.

Table T-4: Existing Transit Service, summarizes the routes in Duvall served by King County Metro.

**Table T-4
Existing Transit Service**

Route No.	Route	Service	Number of Buses	Frequency (Peak)	Frequency (Midday)	Average Weekday Trips (Duvall bus stops)
232	Duvall to Bellevue	Peak	5 morning inbound 5 evening outbound	30 – 60 minutes	N/A	17 trips/day
311	Duvall to Seattle	Peak	7 morning inbound 8 evening outbound	15-30 minutes	N/A	59 trips/day
929	North Bend to Redmond	All Day	6 buses	N/A	3.5 hours	6 trips/day

Source: King County Metro, Fall 2003

Park-and-Ride Facilities

There is currently one park-and-ride facility in Duvall, located on the corner of Main Street and Woodinville-Duvall Road. The Duvall Community Car Park has 49 spaces and is jointly operated by King County Metro and the city of Duvall, who owns the facility. This parking facility is also used as a community parking facility for residents and visitors to McCormick Park, the Snoqualmie Trail and downtown Duvall businesses.

Freight Movement

The movement of freight is a major issue for the city of Duvall. Trucks from as far away as British Columbia and eastern Washington use SR-203 to bypass congestion on I-5 and I-405. Observations made by the WSDOT *2002 Annual Traffic Report* indicate that truck volumes are highest during mid-day hours, but truck volumes are present throughout the day. As noted in the discussion of traffic volumes, up to 13 percent of the daily traffic along SR-203 in Carnation are trucks. Similar percentages are estimated for Main Street in Duvall.

Within Duvall, Main Street, Big Rock Road, Stephens Street, Bruett Road, portions of 3rd Avenue, and Cherry Valley Road see the highest truck volumes. Primary issues related to truck traffic include (1) pedestrian safety; (2) noise; (3) the configuration of the Woodinville-Duvall Bridge at Main Street; and (4) the alignment of the intersection of NE Cherry Valley Road/Main Street. The geometrics of these intersections, along with truck turning characteristics, often result in trucks blocking travel lanes and even may require backing movements to negotiate the turns.

The Duvall City-Wide Visioning Plan identifies truck traffic as a primary issue of the community and supports efforts to reduce the impact and the volume of trucks within the city limits. The City recommends

cooperation with King County and WSDOT to develop near and long term solutions to truck traffic within and adjacent to the city, including the investigation into a bypass route for trucks.

Air Services

The city of Duvall does not have either freight or passenger airplane facilities within or adjacent to the city limits. The nearest airport facility is a general aviation facility in Monroe, located approximately 15 miles north of Duvall. King County International Airport (Boeing Field) is the closest facility that provides national and international airfreight services. Boeing Field is located approximately 25 miles southwest of Duvall. Seattle-Tacoma (SeaTac) International Airport is the closest facility that provides regional, national, and international passenger services. SeaTac is located approximately 35 miles southwest of Duvall.

Forecast Transportation Conditions

This section describes the expected impact of future development and region wide growth on the transportation system. The analysis builds on the 2000 Transportation Element Update, revising regional transportation forecasts and the transportation improvement program. For this update, the travel forecasts are based on the land use assumptions found in Land Use Element. The analysis focuses on 2022, providing an indication of the expected travel needs within the next 20 years.

Recent System Improvements

The existing roadway system currently meets the needs of the community. With traffic signals at Main Street/Woodinville-Duvall Road, Main Street/Stephens Street and Main Street /Big Rock Road, mobility along current arterials remains high. Since 1994, the Public Works Department has overseen the completion of a number of projects improving mobility within Duvall. These include, but are not limited to the following:

- Extension of 3rd Avenue to Cherry Valley Road.
- Improvement of Bruett Road, including sidewalks and bike lanes.
- Connection of 275th Avenue NE to Big Rock Road.
- Improvement of 275th Avenue NE near 150th Street.
- Improvement of 275th Avenue NE from Big Rock Road to NE 142nd Place.
- Installation of traffic signal at Main Street and Stephens Street.
- Installation of traffic signal at Main Street and Big Rock Road.
- Realignment of Big Rock Road and Main Street.
- Development of Community Car Park at Main Street/Woodinville-Duvall Road.
- Improvements to a portion of Batten Road between Big Rock Road and Roney Road.
- Improvements to Roney Road.
- Cherry Valley Vista Pedestrian Bridge.

Forecast Traffic Volumes

The travel forecasts presented in the Transportation Element of the City's 1994 Comprehensive Plan were developed using a travel demand forecasting model. The model was used to forecast 2010 volumes for the PM peak hour. The City's 1994 Comprehensive Plan forecast approximately 2,862 dwelling units in the city by 2010. Ten percent of the dwelling units were expected to be multifamily. The 2010 forecasts also accounted for growth in regional through traffic which would impact the city's transportation system.

The City's 2000 Comprehensive Plan update of the Transportation Element established the previous 2010 land use forecasts as the City's new targets for 2014. The 2000 update did, however, adjust the estimates of regional traffic through the city, including SR-203 and Woodinville-Duvall Road.

The 2004 Comprehensive Plan extends the forecast horizon year to 2022 and reflects changes to the Land Use Element. When the 2004 Comprehensive Plan was adopted, the City estimates a total of 3,638 dwelling units by 2022. This was an increase of over 780 units over the previous 2010/2014 estimates for the city. The majority of the additional growth were assumed to be in multifamily housing, with an increase

of nearly 700 dwelling units compared to the previous forecasts. The additional housing was assumed to be spread throughout the city, with the largest increases in the areas east of 3rd Avenue and north of Bruett Road and in the South UGA area. In 2006, the City updated its dwelling unit estimate. Between 2006 and 2014, 1,802 new units are estimated to be developed, and approximately 585 of these would be in multifamily housing. A total of 2,527 new units are estimated to be developed between 2006 and 2024.

The 2006 Comprehensive Plan update includes an increase in commercial space from just over 40,000 total square feet to up to 6,500 square feet of retail, 43,500 square feet of office, 10,000 square feet City Hall, and a technical college for up to 635 full time equivalent (FTE) students by 2022.

The additional travel demands generated by the increased land uses were added to the 2014 forecasts presented in the 2000 Comprehensive Plan. The travel demands were estimated for the increased development between 2014-2022 horizon years based on *Trip Generation, ITE, 7th Edition*. The trip generation was developed based on the amount of growth allocated to various parts of the city.

The estimated increase in PM peak hour trip generation was distributed and assigned to the street system based on data derived from King County's 2022 travel demand forecasting model. For the 780 additional residential units, approximately 50 percent of the PM peak hour traffic would have a connection to/from the south on SR-203. An estimated 35 percent of the residential trips would connect to/from the west via Woodinville-Duvall Road. The remaining 25 percent of the residential trips were estimated to connect to /from SR-203 north of the city, within the city, or to/from locations east of the city.

The additional traffic generated by the increase in commercial uses within the city would have a slightly different distribution. Approximately 35 percent of the increase in commercial traffic would connect to/from SR-203 south of the city, 30 percent via Woodinville-Duvall Road west of the city, 15 percent to/from SR-203 north of the city, 10 percent to/from east of the city, and 10 percent would remain in the city.

In addition to accounting for the increased growth within the city, the forecasts for traffic entering/exiting the city during the weekday PM peak hour were reviewed and updated. Growth rates from the PSRC and King County travel forecast models were developed for SR-203, Woodinville-Duvall Road, and Big Rock Road. The PSRC models forecast a traffic increase of 2.2 to 2.8 percent per year on SR-203 north of Duvall. Traffic forecasts on SR-203 south of Duvall are only 1.0 percent per year between 1998-2020. The PSRC models show an increase of 4.5 percent per year on Woodinville-Duvall Road just west of SR-203. Review of the model data show much of the increased traffic on Woodinville-Duvall Road connects with Novelty Hill Road via West Snoqualmie Valley Road. This traffic also could use SR-203 to connect to Novelty Hill Road via NE 124th Street south of Duvall.

King County's travel forecasting model has significantly more detail in and around the city of Duvall compared to the PSRC model. The King County model shows somewhat higher growth rates on SR-203 south of Duvall and comparatively lower annual traffic growth rates on Woodinville-Duvall Road. This is due to the more detailed network and zone system in the King County model. Traffic to/from the southern areas of Duvall would connect to Novelty Hill Road via NE 124th Street, instead of Woodinville-Duvall Road. The NE 124th Street route also would be most likely used to/from Big Rock Road. Therefore, the PSRC growth projections were modified to increase traffic forecasts for SR-203 south of the city and decrease the growth rates for Woodinville-Duvall Road just west of SR-203.

The modified PSRC annual growth rates for SR-203 and Woodinville-Duvall Road were applied to the actual 2001/2002 PM peak hour counts at these locations to estimate 2022 traffic volumes at these external locations.

The forecasts at the external arterial connections based on the PSRC and King County models do not account for the additional growth identified by the City as part of the 2004 Comprehensive Plan Update. Therefore, the increase in travel demands generated by the additional 780 dwelling units and 40,000 square feet of commercial uses was added to the forecasts developed using growth rates for SR-203 and Woodinville-Duvall Road. The final step in the forecasting process was to balance the traffic volumes along SR-203.

Figure T-5 shows the resulting 2022 PM peak hour traffic forecasts for key streets in the city. The forecasts assume extension of several streets that were identified in the prior Comprehensive Plan. These include 3rd Avenue (268th Avenue) extended south from 143rd Street to Big Rock Road. Extension of 1st Avenue between NE 145th Street to Big Rock Road also was assumed. Completion of

145th Street between 3rd Avenue and 275th Avenue also was assumed. These corridors will be constructed to serve new developments that are the basis for the travel forecasts.

The potential extension of 3rd Avenue north of Cherry Valley Road to SR-203 was not assumed in the forecasts shown on Figure T-5. This extension would be in unincorporated King County and is not in the County's current Transportation Plan. The extension is identified as part of the City's Transportation Element to close Cherry Valley Road to through traffic to Main Street. This would greatly reduce the operational and safety issues of the skewed intersection of Main Street /Cherry Valley Road.

Table T-5 shows the 2001/2002 traffic volumes and the resulting 2022 PM peak hour forecasts along SR-203, Woodinville-Duvall Road, and Big Rock Road. The resulting growth rates are higher than the PSRC or King County models since they account for additional growth in the city per the 2004 Comprehensive Plan.

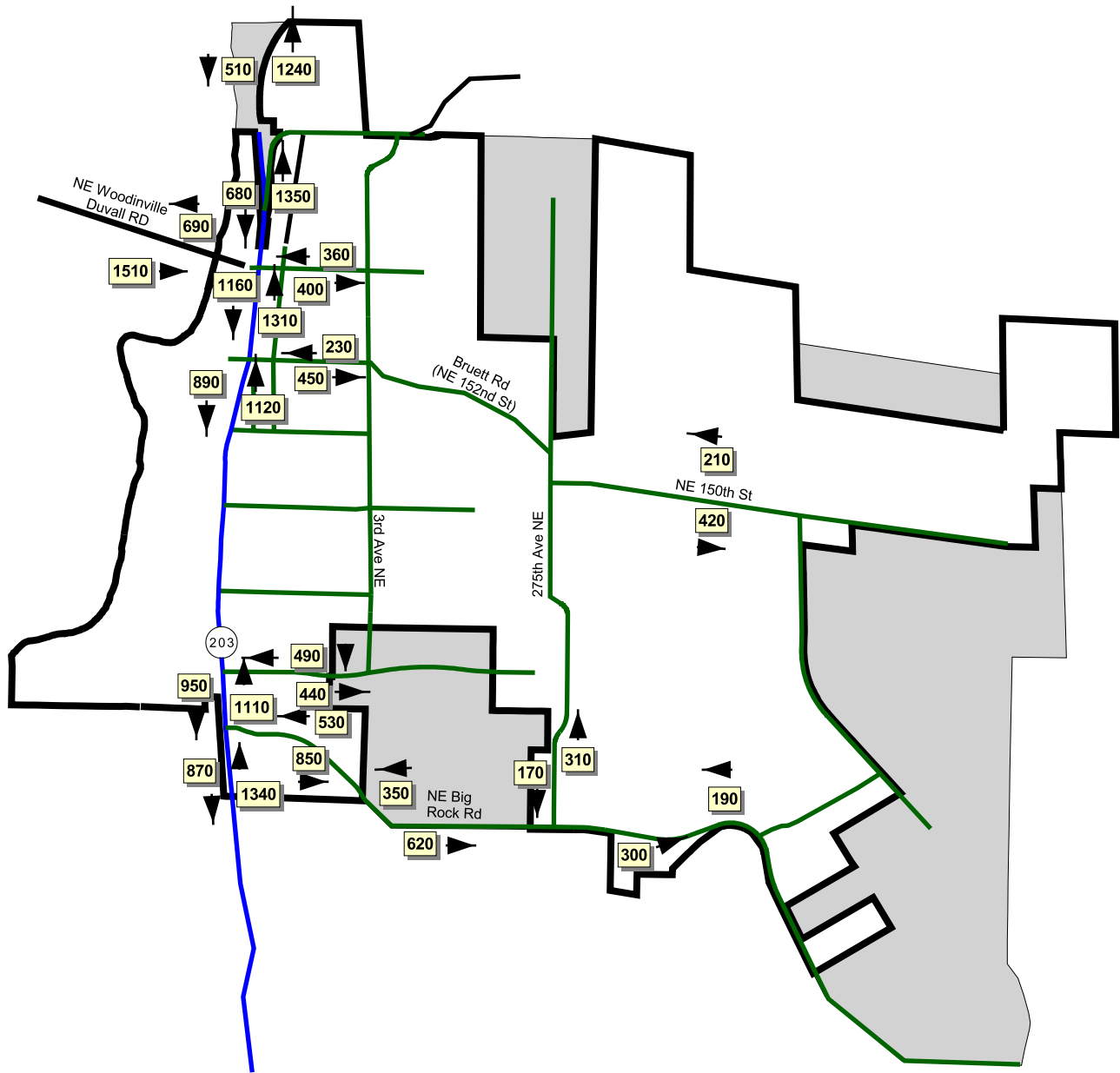
**Table T-5
Existing and Forecast PM Peak Hour Traffic Volumes at Key Locations**

	2001/2002 Actual Volumes	2022 Forecast Volumes	Annual Growth Rate ³
Main Street (SR-203) north of Cherry Valley Road ¹ -Northbound -Southbound	690 300	1,240 510	3.0% 2.7%
Main Street (SR-203) south of city Limits ¹ -Northbound -Southbound	730 390	1,340 870	3.1% 4.1%
Woodinville-Duvall Road west of Main Street (SR-203) ² -Eastbound -Westbound	800 230	1,510 690	3.1% 5.4%
Big Rock Road east of Main Street (SR-203) ² -Eastbound -Westbound	260 180	850 530	5.8% 5.3%

¹ Existing volume based on 2002 traffic count

² Existing volume based on 2001 traffic count.

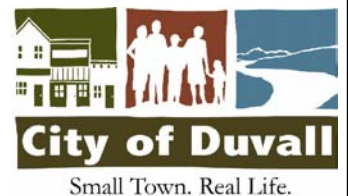
³ Compound annual growth rate



Legend

- 950 PM Peak Hour Link Traffic Volumes
- Roads
- Collector Arterial
- Principal Arterial
- City Boundary Line
- Urban Growth Boundary

Figure T - 5 2022 PM Peak Hour Traffic Forecasts



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Forecast Traffic Operations

Based on the forecast 2022, PM peak hour traffic volumes intersection levels of service were calculated. The level of service analysis was used to identify needed improvements.

Main Street (SR-203) Intersections

As part of its recent vision process and Downtown Sub-Area Plan development, the City has adopted a policy for maintaining Main Street as a 2-lane roadway. Traffic signals and turn lanes would be located at four intersections:

- Woodinville-Duvall Road/Virginia Street
- NE Stephens Street
- NE 143rd Street
- NE Big Rock Road

With these improvements, the intersection of Main Street at Woodinville-Duvall Road/Virginia Street would operate at LOS F during the 2022 PM peak hour. The poor level of service is due to the high volume of traffic at the intersection. The south-to-north through movements and the east-to-north left-turn volumes result in limited signal time for other movements at the intersection. To help reduce the overall delays at the intersection, the intersection will need to be reconstructed to align the Virginia Street (east leg) with the Woodinville-Duvall Road (west leg). In addition, the Downtown Plan identifies addition of a south-to-east left turn lane to provide access to the downtown business district via 1st Avenue. The south-to-east left turn lane also would provide access to residential areas in the east part of the city via Virginia Avenue and 3rd Avenue. This would reduce the volume of traffic on Main Street traveling through downtown.

Even with these improvements, the intersection is forecast to operate at LOS F during the PM peak hour based on the 2022 volumes. When the intersection is realigned, the designs should evaluate the feasibility of constructing right-turn lanes on each of the four approaches. Adding right-turn lanes will still result in LOS F, but will reduce delays at the intersection. Constructing an east-to-south or south-to-west right-turn lane would also reduce delays. However, the existing bridge makes these right-turn lanes more problematic. This intersection would not meet the WSDOT or PSRC LOS D standard.

The intersection of Main Street/Stephens Street also is forecast to operate at LOS F by 2022. Left-turn lanes should be constructed on all four legs of the intersection. These improvements would result in LOS D. Therefore, the intersection would meet the LOS D standard for SR-203.

The existing signalized intersection at Main Street /Big Rock Road is forecast to operate at LOS D during the 2022 PM peak hour, which would meet the PSRC LOS D standard.

The City has previously identified a new traffic signal for Main Street/143rd Street. This location has been reviewed by WSDOT. The intersection would provide access to a major development on the west side of Main Street. Left-turn lanes would be constructed on all four approaches to the intersection. This would result in a 2022 PM peak hour LOS D. A north-to-east right-turn lane would help reduce delays, but would still result in LOS D.

The high volume of north-south through traffic along Main Street will result in traffic delays for side street traffic at unsignalized intersections. Traffic entering Main Street from the side streets will operate at LOS E to LOS F. If excessive delays occur, traffic would shift to the signalized intersections. Left-turning traffic from Main Street to a side street also will experience delays due to the high volume of traffic in the opposite direction. Traffic queues from congestion at the signalized intersections are due to left-turns at unsignalized intersections would result in additional congestion at unsignalized intersections. The Downtown Sub-Area Plan identifies monitoring of traffic operations and safety along Main Street. If problems develop, left-turn restrictions could be implemented. Restriction of left turns would generally result in smoother traffic flows and less delay.

As previously noted, PSRC has established LOS D for the SR-203 corridor, including Main Street in Duvall. Based on the 2022 PM peak hour traffic forecasts, three of the four signalized intersections will meet the standard. The high volume intersection of Main Street /Woodinville-Duvall Road/Virginia Street would operate at LOS F and would not meet the standard. In addition, side streets accessing Main Street

also would operate below LOS D during the 2022 PM peak hour. The City's Transportation Element acknowledges the increased congestion and will exempt the State highway from its concurrency program. The exemption for concurrency results from the City desiring to maintain a 2-lane roadway with limited turn lanes to reduce travel speeds, enhance pedestrian mobility/safety, and to reduce the impacts of truck traffic in the city. This also recognizes that levels of service on Main Street will fall below LOS D even if no development occurs.

Other Intersections

The 2022 PM peak hour levels of service at intersections other than Main Street are forecast to be LOS C or better. Therefore, the intersections would meet the City's LOS C standard, with the completion of improvements identified in the Transportation Element. Depending on the pace of development versus completion of identified improvements, some locations may fall below the LOS C standard between 2004 and 2022. This would require the City to deny the development under its GMA-based concurrency program, unless improvements or strategies to eliminate the deficiencies are in place within six years. Alternatively, the City could amend its level of service standard under a future comprehensive plan update.

Transportation Systems Plan

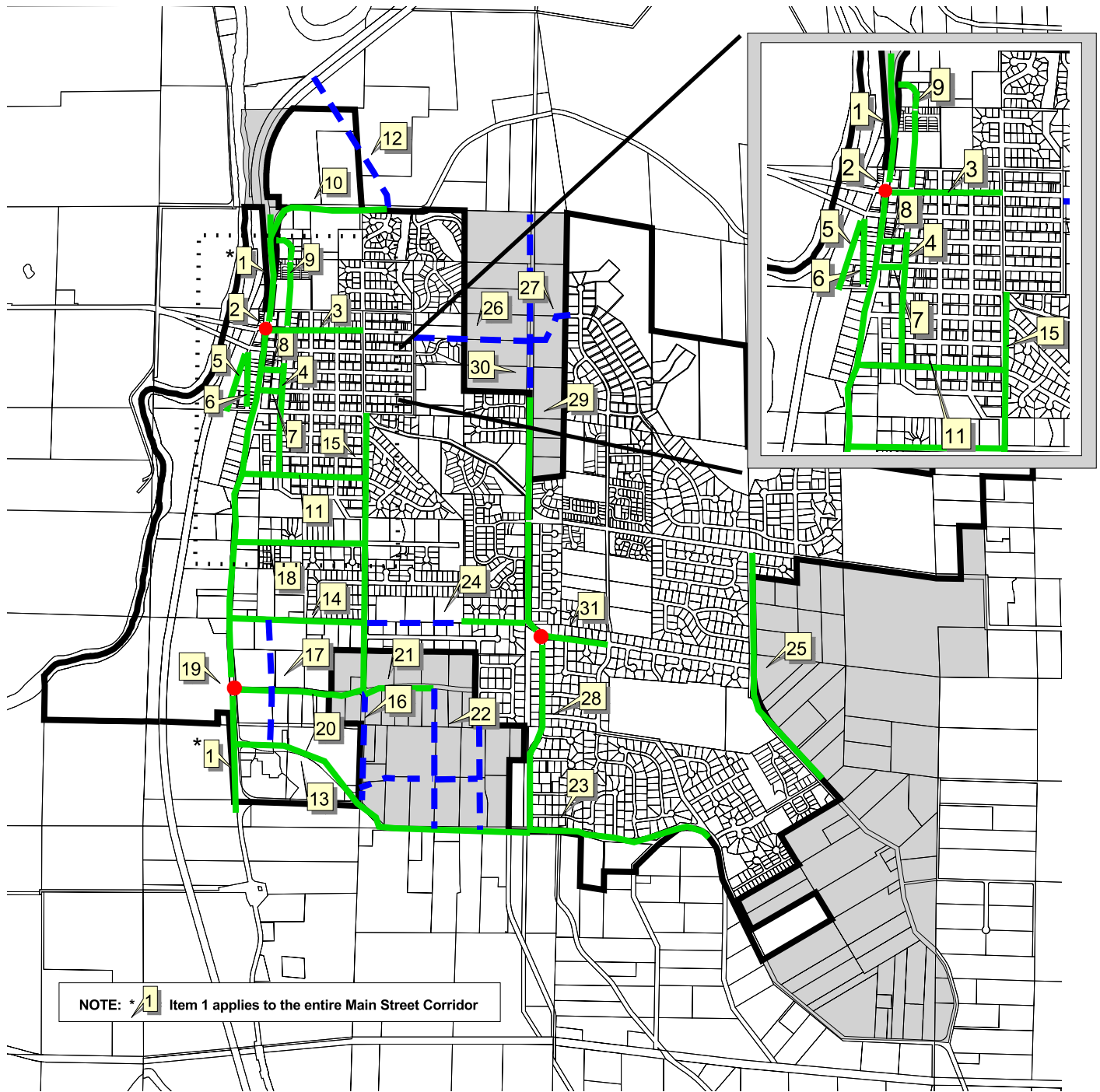
Based on existing and forecast traffic volumes, operations, and safety, a comprehensive package of transportation improvement projects and programs was identified. The improvement projects and program will help the City implement the vision of the overall Comprehensive Plan.

The core part of the improvement projects and program are related to street and highway improvements. The street system provides for the majority of travel to/from, within, and through the city. The street system also provides the general framework for other travel modes including transit, pedestrians, and bicyclists.

Table T-6 and Figure T-6 summarize the recommended Transportation Improvement Projects and Programs. The project list is organized by location of the improvement in the city. In addition, Table T-6 includes three city-wide transportation improvement programs.

Table T-6 includes a project identification number for referencing to Figure T-6. The project name, limits, and description of improvements are also included. Projects included in the City's existing 2005-2010 Transportation Improvement Program are identified since the City has potentially already invested funding into those projects. Planning level cost estimates, a relative priority, and anticipated timing for the improvement are identified.

The following highlights key improvement projects and strategies. Since Main Street is the key transportation facility serving the city it is discussed first. Improvement strategies are then presented for Old Town/Riverfront/North Duvall, South Urban Growth Area, East Duvall, and the city-wide transportation programs.



NOTE: *1 Item 1 applies to the entire Main Street Corridor

0 2000 4000 Feet

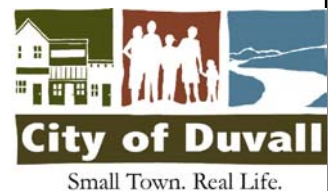
Scale: 1" = 2000 feet



Legend

- Parcels
- City Boundary Line
- Urban Growth Area
- New Roadway
- Reconstruction/Improvements
- Intersection Improvements

Figure T - 6 20-Year Transportation Capital Improvement Plan



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Table T-6

City of Duvall Transportation Improvement Projects and Programs

Area	ID ⁽¹⁾	Project Name	Project Limits	Project Description	In Existing TIP? ⁽²⁾	Cost (\$1,000s) ⁽³⁾	Timing ⁽⁴⁾	Relative Priority	Comments
Old Town / Riverfront/ North Duvall	1	Main Street (SR-203) Improvements	South City Limits to North City Limits	The City will work with WSDOT to define and construct improvements to channelization, signalization, and safety, including construction of curb, gutter, sidewalk, curb bulbs, bike lanes, medians, and storm drainage system. City will maintain a two-lane roadway, with left-turn lanes at signalized intersections. Right-turn lanes may also be constructed at signalized intersections, based on specific design studies. The roadway will include on-street parking and a 25 mph speed limit within the City. The project also will include gateway treatments and speed transition areas at the north and south ends of the City.	Yes	\$19,200	Mid	H	Traffic volumes, operations, and safety will be monitored along Main Street. If problems develop, restrictions to left-turn movements at unsignalized intersections may be required. Implementation of left-turn restrictions should start with the least restrictive measures, such as weekday, peak hours. Any restrictions should be based on an engineering analyses to identify the specific type and location of problems in the corridor.
	2	Main Street (SR 203) at Woodinville-Duvall Road / Virginia Street	Intersection	Reconstruct intersection to align Virginia Street with Woodinville-Duvall Road at Main Street. Construct south-to-east left-turn lane. Evaluate options for right-turn lanes on all approaches. Improve turning radii and modify traffic signal.	No	\$2,800	Mid	H	
	3	Virginia Street	Main Street to 3rd Avenue	Reconstruct roadway to collector arterial standards and improve channelization including two-travel lanes, curb, gutter, sidewalk, curb-bulbs, and on-street parking. Project will include storm drainage system improvements and may require retaining walls	No	\$1,100	Mid	H	
	4	1st Avenue	Valley Street to Virginia Street	Reconstruct to collector arterial standards, including two-travel lanes, on-street parking, sidewalks, and curb bulbs. Street will serve north-south local access and circulation east of Main Street.	No	\$1,600	Mid	M	Project timing tied to development in the corridor.
	5	Railroad Avenue	Stephens Street to Stewart Street	Where feasible, reconstruct to provide two-travel lanes, on-street parking, and sidewalks. Street will serve north-south local access and circulation west of Main Street.	No	\$700	Mid	M	Project timing tied to development in the corridor.
	6	Riverside Avenue	Stephens Street to Stewart Street	Where feasible, reconstruct to provide two-travel lanes, on-street parking, and sidewalks. Street will serve north-south local access and circulation west of Main Street.	No	\$650	Mid	M	Project timing tied to development in the corridor.
	7	Stella Street	1st Avenue to Riverside/Railroad Avenue	Improvements to include curbs, gutters, sidewalks, and on-street parking. Project will improve local circulation and serve as pedestrian travel in downtown.	No	\$550	Mid	M	Project timing tied to development in the corridor.
	8	Cherry Street	1st Avenue to Riverside/Railroad Avenue	Improvements to include curbs, gutters, sidewalks, and on-street parking. Project will improve local circulation and serve as pedestrian travel in downtown.	No	\$500	Mid	M	Project timing tied to development in the corridor.
	9	1st Avenue Extension	Virginia Street to Cherry Valley Road	Maintain and improve connection of 1st Avenue to Cherry Valley Road to enhance local vehicular and non-motorized circulation.	No	\$600	Mid	L	Project timing tied to development in the corridor.
	10	Cherry Valley Road	Main Street to 3rd Avenue	Reconstruct road to minor arterial standards to include two travel lanes, curbs, gutters, sidewalks.	No	\$3,000	Mid	M	If 3rd Avenue has been is extended from Cherry Valley Road to SR 203, then project would reconstruct roadway to collector standards.
	11	Valley Avenue	Main Street to 3rd Avenue	Reconstruct roadway to collector arterial standards and improve channelization including two-travel lanes, curb, gutter, sidewalk, curb-bulbs, and on-street parking. Project will include storm drainage system improvements and may require retaining walls	No	\$1,350	Long	L	
	12	3rd Avenue	Cherry Valley Road to SR-203 North of Duvall	Pursue extension of 3rd Avenue from Cherry Valley Road north to SR-203. Close existing access to SR 203 at Cherry Valley Road.	No	\$3,750	Long	M	Project would require initial study phase and coordination with King County and WSDOT.

Table T-6

City of Duvall Transportation Improvement Projects and Programs

Area	ID ⁽¹⁾	Project Name	Project Limits	Project Description	In Existing TIP? ⁽²⁾	Cost (\$1,000s) ⁽³⁾	Timing ⁽⁴⁾	Relative Priority	Comments
South Urban Growth Area	13	Big Rock Road	Main Street to 3rd Avenue	Construct sidewalks or pedestrian pathways.	No	\$340	Short/Mid	H	
	14	145th Street	Main Street to 3rd Avenue	Reconstruct roadway to provide a collector arterial corridor with two narrow travel lanes, curb, gutter, sidewalks.	No	\$1,450	Mid	H	
	15	3rd Avenue	Stephens Street to 143rd Avenue	Reconstruct roadway to collector arterial standards, including two travel lanes, curb, gutter, sidewalks.	Yes	\$3,900	Short	H	
	16	3rd Avenue Extension	143rd Street to Big Rock Road	Construct new collector arterial segment, including two travel lanes, curb, gutter, sidewalks.	No	\$1,500	Mid	H	Project timing tied to development in the corridor.
	17	1st Avenue Extension	145th Street to Big Rock Road	Construct new two-lane, collector arterial to serve growth. Project will include acquisition of right-of-way, curb, gutter, sidewalk, and storm drainage system. Alignment between 143rd Street and Big Rock Road will need to consider wetlands and property	No	\$2,900	Short/Mid	H	Project timing tied to development in the corridor.
	18	Kennedy Drive	Main Street NE to 3rd Avenue NE	Reconstruct roadway to collector arterial standards, including two travel lanes, curb, gutter, sidewalks.	No	\$1,800	Mid	M	Project timing tied to development in the corridor.
	19	Main Street at 143rd Avenue	Intersection	Install turn lanes and traffic signal.	No	\$450	Short	H	Project timing tied to development on west side of Main Street.
	20	143rd Place	Main Street to 3rd Avenue	Reconstruct roadway to collector arterial standards, including two travel lanes, curb, gutter, sidewalks.	No	\$1,450	Short/Mid	M	Project timing tied to development in the corridor.
	21	143rd Place	3rd Avenue to New South UGA North/South Collector Arterial	Reconstruct roadway to current standards to serve growth. Project will include curbs, gutters, sidewalks, and drainage.	No	\$560	Mid/Long	H	Project timing tied to development in the corridor.
	22	South UGA North-South Corridor	143rd Place to Big Rock Road	Construct a new north-south collector arterial corridor between 143rd Place and Big Rock Road to serve the South UGA. At the time of annexation, establish a local access circulation road system through the South UGA properties to minimize access points onto Big Rock Road, 143rd Place, and the new north-south collector arterial and to create a cohesive, walkable neighborhood.	No	\$2,900	Mid/Long	M	Project timing tied to development in the corridor. Cost estimate is for north-south arterial and does not cover local access/circulation roads.

Table T-6

City of Duvall Transportation Improvement Projects and Programs

Area	ID ⁽¹⁾	Project Name	Project Limits	Project Description	In Existing TIP? ⁽²⁾	Cost (\$1,000s) ⁽³⁾	Timing ⁽⁴⁾	Relative Priority	Comments
East Duvall	23	Big Rock Road	3rd Avenue to Roney Road	Reconstruct roadway to arterial standards including roadway realignment, turn lanes, curb, gutter, sidewalks, bike lanes. Project to serve increased traffic and to improve sight distance, visibility and safety of non-motorized travel.	Yes	\$4,100	Short/Mid	H	Improvements between 278th and 282nd included in 2005-2010 TIP
	24	145th Street	3rd Avenue to 275th Street	Construct new roadway connection to extend collector to serve east-west travel. Plans call for a 20-foot wide pavement to reduce impacts in neighborhood.	Yes	\$1,950	Short	M	
	25	Batten Road	150th Street to Roney Road	Reconstruct roadway to collector arterial standards including curb, gutter, sidewalk, bike lanes, and storm drainage system.	No	\$2,300	Mid	M	Project timing tied to development in the corridor.
	26	Virginia Street	3rd Avenue to 275th Street	Construct new collector arterial between 4th Avenue and 275th Street and reconstruct roadway between 3rd and 4th Avenues to provide access and circulation to developing properties. Roadway would include two travel lanes, curbs, gutter, and sidewalks.	No	\$3,500	Mid	M	Project timing tied to development in the corridor.
	27	Virginia Street	275th Street to Manion Way	Construct new neighborhood collector to provide access and circulation to developing properties. Roadway would include two travel lanes, curbs, gutter, and sidewalks.	No	\$800	Mid	L	Project timing tied to development in the corridor.
	28	275th Avenue	Big Rock Road to 150th Street	Construct remaining segments of sidewalk or pedestrian pathway along collector arterial.	No	\$1,000	Short	M	
	29	275th Avenue NE	Bruett Road to 155th Street	Construct sidewalk or pedestrian pathway on north side of roadway.	No	\$300	Mid	M	
	30	275th Avenue NE	155th Street to Virginia Street	Reconstruct roadway to collector arterial standards including curb, gutter, sidewalk, and storm drainage system.	No	\$1,000	Mid/Long	L	Project timing tied to development in the corridor.
	31	144th Street	275th Street to 278th Street	Upgrade/realign intersection at 275th Street/ 144th Street and construct sidewalk or pedestrian pathway on both sides of roadway.	No	\$360	Mid	M	

Table T-6

City of Duvall Transportation Improvement Projects and Programs

Area	ID ⁽¹⁾	Project Name	Project Limits	Project Description	In Existing TIP? ⁽²⁾	Cost (\$1,000s) ⁽³⁾	Timing ⁽⁴⁾	Relative Priority	Comments
Citywide Programs		Street Overlay, Maintenance, and Operations Program	Citywide	Annual program to maintain and operate, and overlay arterials and local city streets.		\$15,200	Ongoing	Ongoing	Annual average of \$800,000 per year for 19 years.
		Sidewalk, Pathway, and Trail Improvement Program	Citywide	Annual program to construct missing sidewalk, pathway, and trail links not covered by specific improvement projects. Program also covers repair of existing sidewalks and install ADA accessible curb ramps at key intersections.		\$1,400	Ongoing	Ongoing	Assumes 7,000 lineal feet of sidewalk improvements over life of plan.
		Traffic Calming Program	Citywide	Annual program to construct curb bulbs or other traffic calming on collector arterials to improve pedestrian safety and neighborhood quality.		\$1,500	Ongoing	Ongoing	

Notes:

Totals

\$86,460

- (1) ID Project Identification number, see Figure T - 6. The project ID does not reflect priority.
- (2) In Existing TIP ? Some or all of project improvement is identified in City's 2005-2010 Transportation Improvement Program (TIP).
- (3) Duvall Cost City of Duvall share of project cost estimate in \$1,000s of year 2004 dollars. Costs are for transportation system improvements and do not include costs for sewer, water, other utilities, or other non-transportation improvements.
- (4) Timing Short (0-6 years) Project timing reflects priority and anticipated timing for funding and constructing improvement.
Mid (7-12 years)
Long (13-20 years)

Main Street Improvements

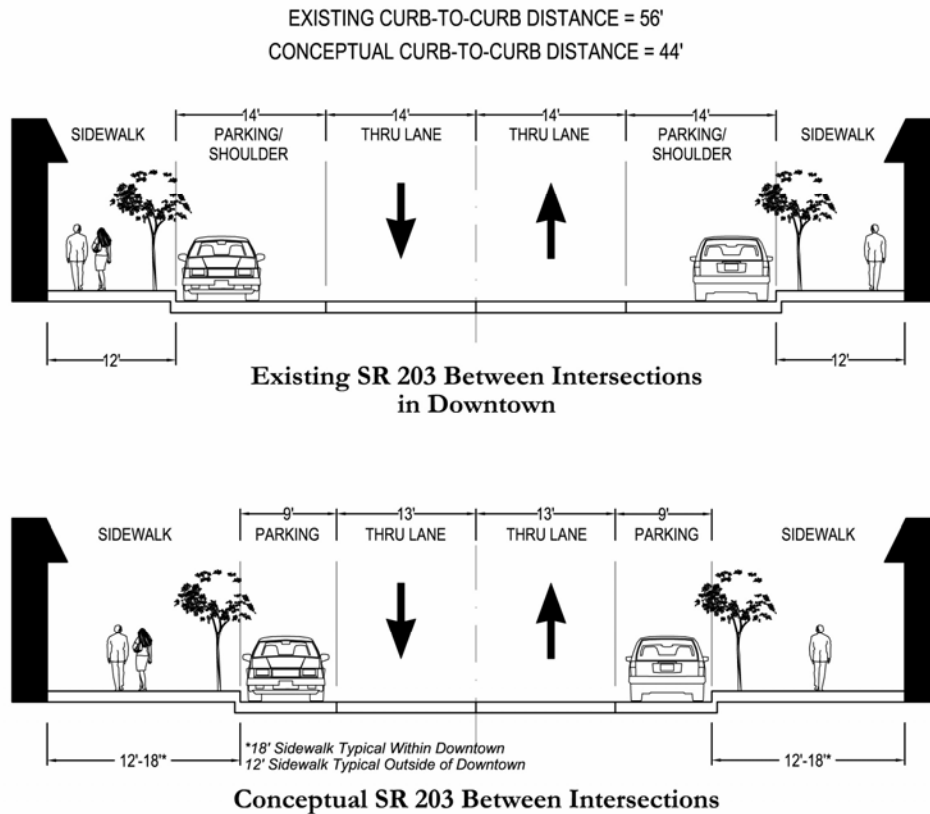
As Duvall and surrounding communities continue to grow, there are concerns about additional traffic and safety along Main Street. The Duvall City-Wide Visioning and Downtown Sub-Area Plans indicate the following recommendations for Main Street Improvements (through the approximate one-mile of SR-203 that is within the city limits):

- Coordinate traffic controls that reduce speeds;
- Provide a narrower road width that will help reduce speeds;
- Install curb bulbs, pedestrian level street lights and other design treatments that reduce travel speeds, enhance the pedestrian environment, and improve pedestrian safety;
- Provide on-street parking on both sides;
- Where feasible alternatives exist, direct bicyclist to parallel corridor to reduce safety conflicts and use of existing right-of-way;
- Work with WSDOT, King and Snohomish County to redirect truck traffic from Main Street (for example, to the existing West Snoqualmie Road); and
- Work with WSDOT to establish a 25 mph speed limit to promote tourism, improve pedestrian safety, and reduce the impacts of commuter and truck traffic through the city.

Increased traffic will put a strain on the existing 2-lane configuration as more development occurs within the city. However, based on the recommendations listed above, and based on a resolution passed by the City Council, the City has approved the conceptual design width for Main Street Improvements as 22 feet from curb face to centerline and to include on-street parking. As noted in Table T-6 and discussed in the forecast traffic operations section, additional turn lanes are identified at the signalized intersections to reduce overall congestion along Main Street (SR-203) within Duvall. The 2022 forecasts and operations analyses also indicate a potential need to restrict left-turn movements at unsignalized intersections in the future. Restrictions to left-turns will be based on evaluations of future traffic volumes, operations and safety.

Figure T – 7: Existing and Proposed Cross-Sections of Main Street, shows the conceptual design of Main Street through the city of Duvall.

**Figure T – 7
Existing and Proposed
Cross-Sections of Main Street**



Old Town/Riverfront/North Duvall Improvements

In addition to the Main Street enhancements, the Transportation Element incorporates other improvements identified in the Downtown Sub-Area Plan. These include realigning/reconstructing the intersection of Main Street with Woodinville Duvall Road/Virginia Street. This improvement is needed to improve safety and traffic operations. It also will facilitate traffic access and circulation to 1st Avenue and residential areas east of 3rd Avenue. This will result in decreasing the volume of traffic which uses Main Street for local access and circulation.

The Transportation Element also calls for reconstructing Virginia Street, 1st Avenue, Railroad Avenue, Riverside Avenue, and Valley Avenue in the downtown area. These collector arterials will provide alternative routes for access and circulation to the expanding business district and new mixed-use developments envisioned for downtown Duvall. Other local streets, such as Stella and Cherry streets, also would be improved to serve pedestrian circulation and provide access to parking.

Although not assumed in the travel forecasts, the Transportation Element extension of 3rd Avenue between Cherry Valley Road to SR-203 north of the city is an important project. The identified corridor shown on Figure T-6 is only conceptual and will require engineering and environmental studies. This new roadway will allow closure of the existing skewed intersection of Main Street at Cherry Valley Road. It

would help improve truck traffic flows as well as reduce safety and operations issues at the existing intersection. The roadway would be in unincorporated King County and will require the City to work with the County to include it in the County's Comprehensive Plan and Transportation Plan.

In 1993, WSDOT conducted a preliminary evaluation of improvements to the SR-203/Cherry Valley Road intersection. A conceptual route similar to the one shown on Figure T-6 was evaluated. The WSDOT study identifies the route as feasible, but noted that it would be costly. The city of Duvall Transportation Element estimates the cost at \$3.5 to 4.0 million, in 2004 dollars. The WSDOT study also identified potential impacts to wetlands and the 100-year flood plain for the new road.

South Urban Growth Area Improvements

Main Street within the South Urban Growth Area (UGA) would also be maintained as 2-lanes with left and/or right turn lanes at signalized intersections. Additionally, left-turn lanes also may be required at unsignalized access streets/driveways for major developments, such as 145th Street. A traffic signal and turn lanes would be constructed at Main Street/143rd Place.

Extension of 1st and 3rd Avenues from their existing locations to Big Rock Road will provide alternatives for local traffic circulation and access to areas identified for substantial growth in the Comprehensive Plan. A new north-south corridor alignment between 143rd Place and Big Rock Road and a new east-west corridor alignment between 268th Avenue NE and 275th Avenue NE also are needed to provide access/circulation for growth in the South UGA. These alignments would then provide access to properties through a localized circulation system which would minimize direct access to Big Rock Road, the north-south corridor, and 143rd Place. The road system shown in #22 on Figure T-6 for the South UGA is conceptual only; specific road locations will be determined at time of annexation and/or development.

Other transportation improvements identified in the plan call for reconstructing several east-west collector arterials to handle higher volumes of traffic. These improvements would include pedestrian facilities. These include 145th Street, Kennedy Drive, and 143rd Place. In addition, 3rd Avenue would be reconstructed between Stephens Street and 143rd Place to improve north-south traffic flows.

Pedestrian improvements are identified for Big Rock Road between Main Street and 3rd Avenue. Additional localized pedestrian and non-motorized improvements would serve properties within the South UGA.

East Duvall Improvements

Improvements east of 3rd Avenue primarily include reconstructing existing roadways to better accommodate increased volumes of traffic and to provide pedestrian facilities. Other improvements include development of needed circulation roads as development occurs.

As shown in Table T-6 and Figure T-6, the plan calls for reconstructing and improving pedestrian facilities along sections of Big Rock Road, 145th Street, Batten Road, Virginia Street, 275th Street, and 144th Street. Additional sidewalks or pedestrian pathways would be developed on 275th Avenue.

The 145th Street collector arterial route would be extended between 3rd Avenue and 275th Street. This project is in the City's 2005-2010 TIP.

A new collector arterial roadway would be developed by improving and extending Virginia Street between 3rd Avenue and 275th Street. East of 275th Street, the roadway would be a neighborhood collector connecting with the existing Manion Way. These streets, along with improvements to 275th Street, will provide the basic circulation system for anticipated future growth in that part of the city.

City-wide Improvement Programs

The Transportation Element includes three city-wide improvement programs:

- Street Overlay, Maintenance, and Operations
- Sidewalk Improvements
- Traffic Calming

The street overlay, maintenance, and operations program will be used to preserve and enhance the City's existing and planned transportation system. The program provides the City with a systematic approach for evaluating arterials and local roadways for pavement conditions, signage, sight distance restrictions, and other similar issues. Traffic control devices, such as traffic signals, will be monitored. To ensure that the transportation infrastructure is preserved in a cost-effective manner, the City will need to consider allocating a significant annual budget including funding for staff resources to administer the maintenance, operations, and capital programs. The staff resources also will be used to prepare grants and for coordination with WSDOT and King County for regional improvements, such as the desired truck bypass route and extension of 3rd Avenue north of Cherry Valley Road.

The sidewalk improvement program will be used by the City to maintain and enhance pedestrian routes in the city. The program will focus on locations not covered by a specific capital project shown in Table T-6. The program will allow the City to fill in missing gaps in sidewalks or pathways that are needed to provide a continuous route to schools, parks, commercial areas or other pedestrian destinations. Where possible, the City will have new developments construct the sidewalk system as part of their frontage improvements. In some locations, developments have already been constructed without the improvements, which will require the City to fund and construct the missing links. The program also can be used to construct wheelchair ramps or other improvements to improve existing sidewalks.

Providing safe and convenient local streets is important to the city. This involves assuring that travel speeds are kept at or below the adopted/posted speed limits. The Transportation Element acknowledges that congestion will result along Main Street. This could result in drivers taking alternative routes using neighborhood streets or collector arterials. A traffic-calming program is included in the program to allow the City to address the impacts of travel speeds and/or cut-through traffic within its neighborhoods. The program is intended to provide a consistent, equitable, and comprehensive approach for addressing these issues.

Access Management Analysis

Access management is the control of the number and location of access points along a roadway in order to provide for the following: access to property, maximize safety for all roadway users, optimize roadway operations, and protect the public's roadway investment. Access management is a primary focus of WSDOT's Department of Urban Mobility and is supported by RCW 47.50 and RCW 47.52.

Access management focuses on the number, location, and size of roadway access points such as driveways and streets. To maximize roadway capacity on major roadways, driveways should be consolidated, located on side streets, and controlled through driveway standards designating the number, spacing, and width.

Development along the Main Street corridor will continue to occur. Access management policies, standards, and strategies will best protect the operation of this facility from poorly located or too numerous access points. While Old Town generally has few driveways onto the state route, its tightly spaced blocks often can result in high levels of turning movements, reducing traffic flows and creating conflict points.

The City should continue to work with WSDOT and King County to implement access management along the Main Street/SR-203 corridor. The Transportation Element identifies extension/completion of additional north-south streets to help reduce the impacts of development on Main Street. These include 1st, 3rd, Railroad, and Riverside avenues. Improvements to connecting east-west streets also are included in the plan.

The access management program will identify where traffic mobility could be improved using access management techniques. The City needs to balance access management with economic development.

Truck Traffic Analysis

Truck traffic will remain an issue within the city of Duvall for the foreseeable future. Some of the causes for high truck volumes include sand and gravel operations in the area, and high volumes on regional roadways such as I-5 and I-405 that result in drivers using SR-203 as an alternative route from I-90 to US-2.

The City, in conjunction with WSDOT and King and Snohomish counties, should investigate the feasibility of designating a truck route that would re-route trucks from SR-203 in Duvall. One potential route would cross the Snoqualmie Valley near the Reformatory Farm on the High Bridge north of Duvall or at Woodinville-Duvall Road, or both, and continue on West Snoqualmie Valley Road to 124th Street, crossing the Novelty Bridge to re-connect to SR-203. Truck route signs would inform drivers of the appropriate routing. This route would require extensive improvements/upgrades to High Bridge Road in Snohomish County and West Snoqualmie Valley Road in King County. King County recently rebuilt the NE 124th Street (Novelty) Bridge and WSDOT recently constructed a roundabout at SR-203/NE 124th Street.

Regional Impacts Analysis

The future operation and adequacy of the transportation system of the city of Duvall to growth in nearby communities and in County lands are closely linked. As population continues to grow throughout the region beyond the 2022 study year, traffic pressures may result in congestion at critical locations along the regional travel facilities.

Through the inclusion of PSRC model data, the future regional growth and its impact is considered within the parameters of the analysis and is expected to meet regional travel needs. The city of Duvall has been an active participant in past, current, and future regional planning efforts and will continue a high level of involvement with nearby communities.

Regional Traffic Improvements

There has been much discussion in past years about the possible construction of a new north-south regional facility in eastern King County to by-pass the congested I-5 and I-405 corridors; however, no action is likely to occur within the next 20 years. In addition, the County has voiced concerns regarding a regional by-pass route because of issues regarding wildlife habitat, development sprawl, and project viability.

The WSDOT Office of Urban Mobility's *Corridor Needs Study for East King County* (December 1999) investigated three scenarios to relieve traffic on major state facilities, while improving mobility within eastern King County. The three scenarios were a North-South Freeway, an Arterial Parkway System, and a Major Transit Investment Strategy. While the study did establish the need for additional north-south

capacity, the regional benefits of the capacity improvements in east King County may be lower than improvements to existing transportation facilities. Results of the scenario analysis are as follows:

- A new North-South freeway would have little travel time savings for through trips due to longer travel distances and expected congestion on US 2 and SR-18.
- Development of the Arterial Parkway System scenario would improve local mobility, but have substantially longer travel times for through trips.
- The Major Transit Investment Strategy would increase ridership and have similar mobility and congestion characteristic to the Arterial Parkway scenario.

The plan asserts that action should be taken to meet the future travel needs of the region; however, these improvements may be more focused on existing congested corridors than in the development of new corridors. The City should continue to participate and follow discussions about regional transportation strategies.

Transportation Demand Management

Transportation Demand Management (TDM) consists of strategies that seek to maximize the efficiency of the transportation system by reducing the number, length and need of private automobile trips. Typically, TDM measures include provision of park and ride lots, improvements to pedestrian and bicycle facilities, and promotion of ridesharing activities. Most recently, the city of Duvall worked closely with King County and WSDOT to develop a park-and-ride facility to encourage the formation of carpooling and the use of transit. The Duvall Community Car Park, on the northeast corner of the intersection of Woodinville-Duvall Road and Main Street, was completed in 2001.

Within the State of Washington, alternative transportation solutions are necessitated by the objective of the Commute Trip Reduction (CTR) Law, which applies to employers with 100 or more employees. The purpose of CTR is to help maintain air quality in metropolitan areas by reducing congestion and air pollution. Currently, the City does not have any employer with 100 or more employees working during a shift between 6am and 9am. When such an employer does exist, the City could develop a Commute Trip Reduction Ordinance consistent with the Commute Trip Reduction Act. The ordinance should include TDM actions for employers, such as carpool matching, transit pass subsidies, and bicycle parking to discourage employees from commuting alone.

Duvall is a growing community in a rural area. TDM strategies are typically most effective in denser and larger urban areas. However, strategies coordinated with King County, WSDOT and Puget Sound Regional Council (PSRC) can provide alternatives for residents and employees in Duvall. Potential TDM strategies the city of Duvall could promote through policy or investment include, but are not limited to:

- Transit-oriented and pedestrian friendly street design
- Transportation coordinators for large employers
- Telecommuting
- Flexible/Alternative work schedules
- Additional Park & Ride facilities
- Ridesharing/Carpooling

Transportation Finance Plan

The GMA requires the Transportation Element of the Comprehensive Plan to include a financing program based on the identified improvement needs. The financing program will be used in developing the required annual Six-Year Transportation Improvement Program (TIP).

The improvement projects and programs presented in Table T-6 will require a range of funding strategies. This section presents a summary of project costs and strategies for funding the program. The specific timing and approach for the funding of specific projects will depend on the level of development, the availability of state or federal grants, local and state tax revenues, and overall City priorities. A strategy for

reassessing the City's Comprehensive Plan should funding for the transportation improvements come up short of the total needs during the 20-year life of the plan is also presented.

The following summarizes the improvement funding needs, the current Six-Year TIP, existing revenues, and other funding strategies. It also summarizes the City's reassessment procedure, in the event that full funding is not achieved over the life of the Plan.

Project Costs

Table T-7 provides a summary of the project costs presented in Table T-6. It is summarized by location of the project and relative priority. The improvement projects and programs are estimated to cost nearly \$86.5 million in 2004 dollars. This requires almost \$4.6 million per year over the 19-year life of the plan.

Of the total costs, \$36 million is allocated to the Old Town/Riverfront/North Duvall Sub-area. This total includes the full \$19.2 million for improvements to Main Street, including the section within the South UGA. The South UGA and East Duvall areas would total \$17.3 million and \$15.3 million, respectively. This represents over \$68 million in capital improvements over the life of the Plan (\$3.6 million per year). Another \$18.1 million is identified for city-wide programs. The largest part of the city-wide programs covers street overlays, maintenance, and operations.

The highest priority capital projects account for over \$38 million in costs. One-half of that amount is for the Main Street improvements. Another \$26.3 in capital projects are identified as medium priority, with \$3.8 million identified as a lower priority.

Table T – 7
Project Costs Summary
(in thousands of 2004 dollars)

Area		High	Med	Low	Total
Capital Projects	Old Town/ Riverfront/ North Duvall	\$ 23,100	\$ 10,750	\$ 1,950	\$ 35,800
	South Urban Growth Area	\$ 11,100	\$ 6,150	--	\$ 17,250
	East Duvall	\$ 4,100	\$ 9,410	\$ 1,800	\$ 15,310
	Sub Total- Capital Improvements	\$ 38,300	\$ 26,310	\$ 3,750	\$ 68,360
City-wide Programs					\$ 18,100
Total					\$ 86,460

Source: City of Duvall Public Works Department

Six-Year Transportation Improvement Plan

Table T-8, below, shows the Transportation Improvement Program (TIP) for 2006-2011. The program includes the projects from Table T-5 that are proposed for funding in this six-year period. The specific scope of the improvements have been reviewed and incorporated into the Transportation Element. Future TIPs will be derived from the Transportation Element as one of the primary methods for implementing the Plan. The improvements shown in Table T-8 include continued work to define, design, and construct improvements to Main Street to enhance the corridor for pedestrians in downtown Duvall. Other TIP projects include reconstruction of sections of Third Avenue, and NE 145th Street to arterial standards. These improvements support the overall Transportation Element by providing arterial level streets to serve new growth. These improvements will provide alternative routes for traffic access and circulation. These projects total nearly \$7.9 million over six years, or \$1.3 million per year. This is well below the long-term average need of \$3.6 million per year in the capital projects. This suggests that future programs will

need to be funded at a significantly higher rate for the City to implement the full program over the next 19 years.

Table T-8
Transportation Improvement Program 2005-2010

PROJECT	Cost in 2006	2006	2007	2008-2011	TOTAL	LOCAL FUNDS ¹	STATE FUNDS / FEDERAL FUNDS
Main Street (Downtown) – Cherry Valley Rd. to Valley St.	\$2,800,000	\$60,000	\$160,000	\$2,580,000	\$2,800,000	\$1,800,000	\$0 / \$1,000,000
NE 145th Street NE– 3 rd Avenue NE to 275 th Ave	\$1,960,000	\$100,000	\$1,860,000		\$1,960,000	\$1,760,000	\$200,000 / \$0
3 rd Avenue Improvements	\$5,410,000			\$5,410,000	\$5,410,000	\$5,020,000	\$390,000 / \$0
275 th Avenue NE	\$1,000,000			\$1,000,000	\$1,000,000	\$900,000	\$100,000/\$0
TOTAL	\$11,170,000	\$160,000	\$2,020,000	\$8,990,000	\$11,170,000	\$9,480,000	\$1,690,000

Source: City of Duvall Public Works Department

Existing Revenues

Table T-9 summarizes the estimated revenues for transportation improvements and programs for transportation improvements and programs based on the City's recent history. All revenue estimates are in 2004 dollars, consistent with the cost estimates.

Based on recent City revenues, a total of \$10.1 million would be generated over the life of the plan. These revenues include fuel taxes (\$2 million) and personal property taxes (\$3.7 million). The City also estimates that up to \$3.5 million could be generated based on its existing impact fee program based on the average impact fee revenues for the last four years. These revenues assume that 1/3 of property tax revenues will continue to be dedicated to the Street Fund.

Table T-9
Existing Transportation Revenues

Revenue Category	Annual Revenues ¹	2004-2022 Revenues ¹
Motor Vehicle Fuel Taxes ²	\$ 105,000	\$ 1,995,000
Property Taxes	\$ 192,000	\$ 3,648,000
Impact Fees	\$ 189,000	\$ 3,591,000
Miscellaneous	\$ 46,000	\$ 874,000
Total	\$ 532,000	\$10,108,00

Source: City of Duvall Public Works Department

¹ 2004 dollars

² Includes restricted and unrestricted fuel taxes

Grants

In addition to state fuel taxes and other City revenues allocated to transportation, the City has pursued and secured a range of grants for transportation projects. Between 2000 and 2004, the City obtained nearly \$1.7 million in grants. This results in an average of \$335,000 per year. If the City were to average \$335,000 per year over the 19-year life of the plan, it could expect \$6.4 million in additional grants.

The City will likely need to secure significantly more in grants to be able to fund the Main Street improvements. Assuming that 50 percent of the Main Street improvement costs could be covered by grants that would result in \$9.6 million in grants or funding by other agencies, such as WSDOT.

Grants or other outside funding also should be pursued for a range of other projects, such as:

- The realignment of Main Street/Woodinville-Duvall Road/Virginia Street (#2)
- 3rd Avenue Extension to SR 203 (#12)
- 145th Street (#24)
- Improvements to 1st Avenue, Riverside, Railroad Avenue and other downtown streets that will support economic development of the city.

A total of nearly \$18 million in grants or other non-city funding would be expected to be available to support the City's transportation improvement needs. This includes \$9.6 million to cover 50 percent of the Main Street improvements and \$8.4 million (\$440,000 per year) for other projects, which is higher than the City's recent history of averaging \$335,000 per year.

Additional Traffic Impact Fees

As shown on Table T-9, by 2022, the City would generate \$3.6 million in traffic impact fees from new development based on the average fees collected in the past five years and based on the existing fee of \$2,682 per pm peak hour trip. Based on the updated plan and cost estimates, the traffic impact fee could be increased from its current level of \$2,682 per pm peak hour trip which was established in December 1993 based on the analyses supporting the 1994 Comprehensive Plan, to \$4,310 per new pm peak hour trip.

The 2004 Comprehensive Plan includes a range of improvement projects necessitated by growth. These include improvements to add vehicular capacity such as the realignment and added turn lanes at Main Street/Woodinville-Duvall Road and the new signal at Main Street/143rd Place. The improvements also serve regional traffic or function as the primary access to a private development. Therefore, only a portion of the costs were included in the impact fee calculation.

Growth in the city will also require upgrading several streets to urban collector or minor arterials. These include Virginia Street, 1st Avenue, Cherry Valley Road, Valley Avenue, 143rd Place, 3rd Avenue, 145th Street, Big Rock Road, and other collector arterials. Only a portion of the costs of these improvements would be included in the impact fee program since it would be desirable to make some minor improvements even without additional growth.

A total of \$14.5 million of the program costs were allocated for impact fees between 2004 and 2022. This is approximately \$760,000 per year. Based on the forecast growth in traffic associated with new development in the city, the impact fee could be increased to \$4,310 per new pm peak hour trip. This is 60 percent higher than the existing fee which was adopted in December 1993. The fee could be indexed to a cost escalator to cover the affects of increased construction costs over the life of the plan. As a matter of policy, the City can adjust the impact fee downward. This would require the City to fund the cost differential through other City funding or additional grants/outside funding.

The City will continue to allow for independent fee calculations and provide for credits in accordance with state law.

Developer Improvements

In addition to traffic impact fees, some developments would need to construct frontage improvements or new roadways to provide access/circulation to serve them. As an example, extension of 1st Avenue between 145th Street and Big Rock Road (#17), the new South UGA North-South Arterial (#22), and the

extension of Virginia Street (#26) would primarily be project improvements and not system improvements. Therefore, those improvements would be a requirement of the specific developments in those corridors. They could either be constructed piecemeal with each development or the priority owners could join forces and build the improvements at one time. The City could support the latter approach through assisting in the formation of a Local Improvement District (LID), or other joint funding program.

Developers also would be required to construct their project frontage. To the extent that the cost of their frontage is included in the impact fee costs, they would be due a credit. If the frontage improvements were not included, or only partially included, in the impact fee program, then the credit would be reduced accordingly.

The funding strategy identifies almost \$28 million in developer improvements in addition to the increased impact fee program.

Summary of Financing Strategy

Table T-10 summarizes the City's proposed transportation financing strategy. All values are presented in 2004 dollars. The plan results in a potential shortfall of \$19.5 million. This assumes that the level of grants and development impact fees will be generated as estimated in this Plan. The deficit could be greater if the level of development or the level of grant funding is less than forecast. This would be offset by a reduced need for transportation improvements necessitated by growth. If the City is more successful in obtaining grants or other outside funding for projects such as the Main Street improvement, then the potential deficit could be reduced.

Table T-10
Transportation Funding Strategy Summary

Funding Program	2004-2022 (in 2004 dollars)
Motor Vehicle Fuel Taxes	\$1,995,000
Property Taxes	3,648,000
Miscellaneous Revenues	874,000
Traffic Impact Fees	14,520,000
Grants or Other Agency Funding	17,940,000
Developer Improvements	27,960,000
Subtotal	\$66,937,000
Total Project and Program Costs	\$86,460,000
Estimated Shortfall	(\$19,523,000)

Source: City of Duvall Public Works Department

Reassessment Strategy

The 1994 Comprehensive Plan did not include a reassessment strategy in the event that funding shortfalls occur. Jurisdictions can respond to funding shortfalls, either by restricting land use development or lowering the LOS standard, or extending the time frame for funding the improvement projects.

In the event that the City cannot fund the transportation capital improvements needed to maintain adopted transportation service standards (as identified in the Transportation Facility Plan), then the City shall take one or a combination of the following actions:

1. Phase proposed developments that are consistent with the land use plan until adequate resources can be identified to provide adequate transportation improvements.
2. Reassess the City's transportation financing strategy to find additional opportunities with federal and regional grants and funding programs, and develop new partnerships with WSDOT, King County, and the private sector.
3. Reassess the City's adopted transportation service standards to reflect service levels that can be maintained given known financial resources. The level of service standard for SR-203, a regionally significant state highway, is set by PSRC. Therefore, the City cannot independently adjust the LOS standard for Main Street (SR-203). The City would need to work with PSRC and other agencies served by SR-203 to address potential changes to LOS standards for SR-203.
4. Phase improvement projects to extend the funding needs beyond 2022. During the first 5 to 10 years of the Plan, the City will focus on the highest priority improvements, unless specific developments trigger specific improvement needs. The City also could prioritize overlays and maintenance improvement programs to reduce annual costs.

The improvement program and financing strategy will be evaluated each year as part of the annual Six-Year TIP. This will allow the City to match available financing with specific near-term improvement needs. This will also take into account the level and location of future development within the city consistent with concurrency requirements.

In order to maintain and develop the city's transportation system, the City will apply the following principles:

- Balance improvement costs with available revenues as part of the annual Six-Year Transportation Improvement Plan.
- Coordinate with WSDOT to secure grants and other funding for improvements to Main Street.
- Pursue transportation grants and economic assistance programs to improve downtown streets in accordance with the Transportation Element and Downtown Sub-Area Plan.
- Work with private developments to implement new access/circulation improvements identified in the Transportation Element.

Development Review and Concurrency Management

As part of the review of developments applications, the City will apply its level of service standards and other regulations related to transportation impacts of new growth. The City has identified general guidelines for traffic impact studies for development applications. The guidelines identify the general requirements for scoping the traffic analyses needs to assess potential traffic impacts and mitigation. In order to ensure fair and equitable review of development application, the City will work to refine the guidelines into a more formal program.

Key elements of the traffic study process under SEPA will cover:

- Evaluation of impacts on level of service (LOS D for Main Street; LOS C for all other arterials);
- Transportation concurrency; and
- Mitigation of off-site impacts through impact fees, LIDs, and/or direct developer mitigation.

The City will implement its concurrency requirements through the SEPA review process of development applications. This process is used since the City has limited availability of staff and limited technical resources to apply to implement systems that are more complex found in larger jurisdictions. The SEPA process also ties the concurrency to specific development applications, instead of applying it city-wide or to sub areas of the city.

The following summarizes the framework for the SEPA-based concurrency review:

- Traffic study required, scope to be based on traffic thresholds and impacts;

- Baseline traffic forecasts to be developed and based on existing traffic, historical growth rates, and pipeline development traffic;
- Project traffic based on trip generation, distribution, and assignment;
- Future conditions evaluated based on City or other agency improvements that are funded for construction within six years;
- Assess project impacts at locations that fall below the City's adopted LOS standard;
- Require mitigation to resolve LOS deficiencies, unless exempt from concurrency based on policies; Concurrency will not be applied to Main Street or intersections along Main Street.
- If a deficient location is exempt from concurrency, require appropriate mitigation (such as payment of impact fees or proportionate share mitigation, construct partial improvements to offset project impacts, or reduce development impacts through phasing or TDM programs);
- If adequate mitigation is not defined to resolve the LOS deficiency, then the City will deny the development; and
- Identified LOS deficiencies will be used to seek grants or other funding and as an input to the annual Six-Year TIP process.

Goals and Policies

The Transportation Element goals and policies are statements that reflect the goals and objectives of the community. These goals and policies frame the development of transportation strategies and incorporate regional and state mandates into the Comprehensive Plan. Goals and policies for the Transportation Element are based primarily on the City-Wide Visioning Plan and the Downtown Sub-Area Plan, as well as the 2004 Transportation Element Update.

Goal T – 1 Develop a transportation system that supports the desired quality of life and addresses the needs of the community, is consistent with the Land Use Element and transportation priorities, and incorporates regional transportation linkages.

Policies

- T – 1.1 Work with King and Snohomish counties, the cities of Monroe and Carnation, WSDOT and Puget Sound Regional Council, to encourage state and federal funding of the Rural Town Centers and Corridors Program to plan and fund projects on SR-203.
- T – 1.2 Update and revise as necessary, a functional roadway classification system designed to facilitate different types of traffic flows and access needs and to ensure that transportation system improvements are compatible with adjacent land uses and will minimize potential conflicts. Street classifications should reflect the desired function of the street. Street classifications shall include principal, collector, and minor arterials.
- T – 1.3 Encourage the development of low-impact street designs throughout Duvall.
- T – 1.4 Implement the transportation system improvements as identified in Table T-6, Transportation Improvement Projects and Programs and as prioritized in the 6-year Transportation Improvement Program.
- T – 1.5 Use grants, local taxes and funds, impact fees, and other funding sources to implement capital projects as identified in the City's Capital Improvement Program (CIP).

Goal T – 2 Ensure that roadways are improved and/or developed to facilitate an efficient and effective road network system, while taking into consideration aesthetics and safety concerns.

Policies

- T – 2.1 Review and amend street standards to include street trees between sidewalks and travel lanes on all roads. Maintenance of such street trees shall be by the adjacent property owner.
- T – 2.2 Ensure new residential and commercial developments that front public roads are landscaped adjacent to and in, if appropriate, the right-of-way, in a manner that is attractive to the traveling public. Landscaping shall be located outside of fences and shall be privately maintained.
- T – 2.3 Minimize the number of access drives onto Main Street and arterials to maintain capacity and safety.

T – 2.4	Coordinate with WSDOT to implement the Access Management Guidelines to control land use development and local street access patterns around Main Street intersections to protect the functional viability of the arterial road and to support economic development.
T – 2.5	Provide for connectivity within and between developments, while allowing for cul-de-sacs within a development. Where cul-de-sacs are permitted, provide pedestrian access through to the adjacent parcels and rights-of-way and allow for landscape circles in the center of the cul-de-sac.
T – 2.6	Establish speed limits on city roadways that allow for pedestrian safety and efficient vehicular traffic throughout Duvall.
T – 2.7	Pursue the extension and enhancement of 3 rd Avenue north of Cherry Valley Road to SR-203.
T – 2.8	Develop a grid system of collection arterials to serve South UGA, including extension of 3 rd Avenue to Big Rock Road; extension/reconstruction of Kennedy, 145 th Street, 143 rd Streets; and development of a new 1 st Avenue corridor between 143 rd and Big Rock Road.
T – 2.9	Develop a new north-south corridor between 143 rd Place and Big Rock Road to serve the South UGA. At the time of annexation, establish a local access circulation road system through the South UGA properties to minimize access points onto Big Rock Road, 143 rd Place, and the new north-south corridor and to create a cohesive, walkable neighborhood.
T – 2.10	The 145 th Street arterial east of 2 nd /3 rd avenues will be limited in width due to right-of-way constraints and to minimize impacts to existing neighborhoods.
T – 2.11	Extend and enhance 1 st Avenue north of Virginia Street to connect to Cherry Valley Road.
T – 2.12	Improve 1 st Avenue NE between NE Valley and Virginia streets to serve local circulation and access to parking within Downtown on the east side of Main Street.
T – 2.13	Improve Railroad and Riverside avenues between Stephens and Stewart streets to city standard.
T – 2.14	Work with private developments to extend Virginia Street from 3 rd Avenue to Manion Way and to improve 275 th Avenue north of Bruett Road to serve new growth.
T – 2.15	Improve Stella and Cherry streets to provide for local circulation and to serve key pedestrian routes.
Goal T – 3	Develop Main Street throughout the Duvall city limits as a 2-lane road with wide sidewalks, on-street parking and provisions for bicycles.
Policies	
T – 3.1	Develop Main Street through the city with a width of 44 feet from curb to curb, including on-street parallel parking and bike lanes on both sides of the street.

- T – 3.2 Provide pedestrian improvements along Main Street, including wide sidewalks, improved marked crosswalks and curb bulbs at unsignalized intersections.
- T – 3.3 Realign Virginia Street with Woodinville-Duvall Road at Main Street and improve Virginia Street between Main Street and 3rd Avenue.
- T – 3.4 Provide left-turn lanes at Main Street / Woodinville-Duvall Road / Virginia Street and Main Street / Stephens Street intersections.
- T – 3.5 Provide improvements along Main Street that enhance the flow of traffic without increasing the speeds or compromising the pedestrian environment.
- T – 3.6 Monitor traffic operations and safety along Main Street. If problems develop, restrictions to left-turning traffic may be required.
- T – 3.7 Work with WSDOT, King County and Snohomish County to identify a truck bypass route of Main Street to minimize truck traffic through the city.
- T – 3.8 Reduce the speed limit to 25 mph or less on Main Street to promote pedestrian safety and a walkable community.
- T – 3.9 Create transition zones at the gateways to Duvall through the use of medians, landscaping, curb bulbs or other entry features.
- T – 3.10 Traffic signals shall be minimized on Main Street.
- T – 3.11 Develop a design plan that addresses street lighting, street trees, street furniture, public art, banners, signage, medians, etc. that promote a sense of a “Main Street Corridor” along the length of Main Street through Duvall.

Goal T – 4 Preserve and enhance the economic vitality and character of Main Street by implementing design improvements along the corridor.

Policies

- T – 4.1 Develop a design plan that addresses street lighting, street trees, street furniture, public art, banners, signage, medians, etc. that promote a sense of a ‘Main Street corridor’ along the length of Main Street through Duvall.
- T – 4.2 Enhance Downtown streetscapes and pedestrian access in conjunction with redevelopment along Main Street.
- T – 4.3 Create a signage and way-finding program that directs vehicles and pedestrians to parking areas, public facilities, and attractions in Old Town.
- T – 4.4 Existing aboveground utilities on Main Street from Bird Street to Valley Street shall be undergrounded if feasible during public or private improvements to Main Street.

Goal T – 5 Maintain and expand on and off-street parking opportunities in Duvall.

Policies

- T – 5.1 Provide on-street parking along Main Street, 1st, Railroad and Riverside avenues.
- T – 5.2 Support narrow street design and on-street parking throughout Duvall.

- T – 5.3 Encourage Old Town businesses to reserve on-street parking spaces for business patrons.
- T – 5.4 Allow for more short-term parking in Old Town to support businesses.
- T – 5.5 Explore opportunities to provide off-street parking lots within Old Town.
- T – 5.6 Consider a 2-4 hour parking limit on some public streets to minimize use by Metro transit users, and encourage use of the Duvall Community Car Park.
- T – 5.7 Continue to provide public parking for McCormick Park jointly with the temporary police facility at Stephens Street and Railroad Avenue.
- T – 5.8 Encourage and/or require parking areas for private developments to locate at the back or side of the development.

Goal T – 6 **Create safe and convenient pedestrian and bicycle access throughout Duvall.** *(Additional goals and policies are found in the Parks and Recreation Element)*

Policies

- T – 6.1 Facilitate safe bicycle access along Main Street.
- T – 6.2 Enhance bicycle and pedestrian access to the Snoqualmie River Trail and other downtown parks.
- T – 6.3 Enhance streetscapes and pedestrian access and circulation in conjunction with new development.
- T – 6.4 Ensure that there are pedestrian walkways through parking facilities and between land use developments.
- T – 6.5 Require pedestrian amenities as part of all new public and private development.
- T – 6.6 Coordinate with WSDOT and King County to improve pedestrian and bicycle safety on State and County roads that provide pedestrian and bicycle connections.
- T – 6.7 Link residential neighborhoods to schools, parks and community facilities with trails and link those trails to other existing and proposed trails, including the Snoqualmie Valley Trail.
- T – 6.8 Encourage King and Snohomish counties to extend the Snoqualmie Valley Trail northward from Duvall.
- T – 6.9 Encourage Duvall residents to walk and bicycle by providing paths and sidewalks and ensuring that residents know where such paths and sidewalks are located.
- T – 6.10 Update and implement Duvall's pedestrian corridor system design guidelines.
- T – 6.11 Ensure that the development in South UGA provides circulation for pedestrians and bicycles, and linkages to the surrounding community, to create a walkable mixed-use community.

Goal T – 7 Support and enhance public transportation services in Duvall.

Policies

- T – 7.1 Develop transportation facilities that support transit, car-pooling and non-motorized transportation modes to reduce the use of single occupancy vehicles and associated impacts to air and water quality.
- T – 7.2 Coordinate with King County Metro to improve transit service within the Duvall area, particularly between Duvall and major commercial and employment districts within the Puget Sound region and in the surrounding Snoqualmie Valley region.
- T – 7.3 Coordinate with King County Metro to expand transit service to the south end of Duvall and to the upper residential neighborhoods when there is a demand for such service.
- T – 7.4 Continue to encourage high-density residential development within walking distance of Duvall's business districts and the Community Car Park in order to promote transit use and pedestrian access.
- T – 7.5 Support improvements for pedestrian access to transit facilities in Old Town to support transit ridership.
- T – 7.6 Provide bus shelters and other enhancements at higher volume bus stops.
- T – 7.7 Enhance transit service commensurate with population growth and increased activity in Duvall.
- T – 7.8 Coordinate with King County Metro to improve bus and pedestrian access to the Duvall Community Car Park to help establish it as a more usable park-and-ride facility and work to increase the visibility of the Car Park.
- T – 7.9 Coordinate with King County Metro to improve bus service to the planned Lake Washington Technical College branch in the South UGA as enrollment makes service feasible.

Goal T – 8 Develop and implement Transportation Demand Management strategies to reduce the dependency of single occupancy vehicles.

Policies

- T – 8.1 Encourage the development of Transportation Demand Management (TDM) strategies to increase use of high occupancy vehicles and support the efficient use of transportation facilities.
- T – 8.2 Participate in the education and promotion of city and regional non-motorized transportation and public transit facilities and services.
- T – 8.3 Develop a Commute Trip Reduction ordinance at such time when an employer or commercial development has 100 or more employees working a shift.
- T – 8.4 Develop transportation plans and programs that consider the impact to air and water quality and support county, regional and state air quality goals and requirements. Educate residents about air quality impacts, alternative modes of transportation and alternative fuels.

Goal T – 9 **Coordinate the development of transportation facilities concurrent with development of land use to ensure the viability of the transportation system.**

Policies

- T – 9.1 Adopt a level of service standard C for all arterials in the city, except for Main Street, which should be adopted at level of service D.
- T – 9.2 The level of service for minor side streets or driveways intersecting with an arterial will be assessed at the time of the development application. If the LOS falls below the City's standards, the city engineer will identify appropriate mitigation or possible denial.
- T – 9.3 Implement a concurrency management system to assess the expected transportation impact of proposed development on the available capacity of the arterial system. New development shall be allowed only when and where all transportation facilities are adequate at the time of development, or unless a financial commitment is in place to complete the necessary improvements or strategies that will accommodate the impacts within six years.
- T – 9.4 The City will not apply concurrency to the Main Street Corridor or intersections along Main Street.
- T – 9.5 Exempt the development of critical public facilities, such as schools, libraries, emergency services and municipal facilities from concurrency. Such exemptions do not relieve the developments from required transportation fees and improvements unless provided for under specific ordinance.
- T – 9.6 Implement a reassessment strategy that alters either land use or transportation assumptions or delays projects if funding levels cannot be met to implement the planned improvements.
- T – 9.7 Require new developments to plan for, design, and construct local streets that facilitate access, circulation, and emergency vehicle response.
- T – 9.8 Actively solicit action by the Washington State DOT and the King County DOT to program and construct those improvements to State and County arterial systems that are needed to connect Duvall to regional employment and commercial districts.
- T – 9.9 Work with King County to determine future configuration and location of the Woodinville-Duvall Bridge. Any changes to the configuration and/or location of the bridge shall be reviewed in light of Old Town development.
- T – 9.10 Establish development review guidelines that implement the City's transportation policies, including LOS standards, concurrency, and mitigation requirements.
- T – 9.11 Establish requirements for traffic studies that will be required by all new developments above a specified threshold.

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